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|---|---|---|---|
| NEWS | 1 | | Web Page URLs for STN Seminar Schedule - N. America |
| NEWS | 2 | | "Ask CAS" for self-help around the clock |
| NEWS | 3 | FEB 27 | New STN AnaVist pricing effective March 1, 2006 |
| NEWS | 4 | MAY 10 | CA/CAplus enhanced with 1900-1906 U.S. patent records |
| NEWS | 5 | MAY 11 | KOREAPAT updates resume |
| NEWS | 6 | MAY 19 | Derwent World Patents Index to be reloaded and enhanced |
| NEWS | 7 | MAY 30 | IPC 8 Rolled-up Core codes added to CA/CAplus and USPATFULL/USPAT2 |
| NEWS | 8 | MAY 30 | The F-Term thesaurus is now available in CA/CAplus |
| NEWS | 9 | JUN 02 | The first reclassification of IPC codes now complete in INPADOC |
| NEWS | 10 | JUN 26 | TULSA/TULSA2 reloaded and enhanced with new search and and display fields |
| NEWS | 11 | JUN 28 | Price changes in full-text patent databases EPFULL and PCTFULL |
| NEWS | 12 | JUl 11 | CHEMSAFE reloaded and enhanced |
| NEWS | 13 | JUl 14 | FSTA enhanced with Japanese patents |
| NEWS | 14 | JUl 19 | Coverage of Research Disclosure reinstated in DWPI |
| NEWS | 15 | AUG 09 | INSPEC enhanced with 1898-1968 archive |
| NEWS | 16 | AUG 28 | ADISCTI Reloaded and Enhanced |
| NEWS | 17 | AUG 30 | CA(SM)/CAplus(SM) Austrian patent law changes |
| NEWS | 18 | SEP 11 | CA/CAplus enhanced with more pre-1907 records |
| NEWS | 19 | SEP 21 | CA/CAplus fields enhanced with simultaneous left and right truncation |
| NEWS | 20 | SEP 25 | CA(SM)/CAplus(SM) display of CA Lexicon enhanced |
| NEWS | 21 | SEP 25 | CAS REGISTRY(SM) no longer includes Concord 3D coordinates |
| NEWS | 22 | SEP 25 | CAS REGISTRY(SM) updated with amino acid codes for pyrrolysine |
| NEWS | 23 | SEP 28 | CEABA-VTB classification code fields reloaded with new classification scheme |

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|---|---|
| NEWS EXPRESS | JUNE 30 CURRENT WINDOWS VERSION IS V8.01b, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 26 JUNE 2006. |
| NEWS HOURS | STN Operating Hours Plus Help Desk Availability |
| NEWS LOGIN | Welcome Banner and News Items |
| NEWS IPC8 | For general information regarding STN implementation of IPC 8 |
| NEWS X25 | X.25 communication option no longer available |

Enter NEWS followed by the item number or name to see news on that specific topic.

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* * * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 12:44:18 ON 28 SEP 2006

=> file caplus
COST IN U.S. DOLLARS

| | SINCE FILE ENTRY | TOTAL SESSION |
|---|---|---|
| FULL ESTIMATED COST | 0.21 | 0.21 |

FILE 'CAPLUS' ENTERED AT 12:44:27 ON 28 SEP 2006
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FILE COVERS 1907 - 28 Sep 2006 VOL 145 ISS 14
FILE LAST UPDATED: 27 Sep 2006 (20060927/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply.
They are available for your review at:

http://www.cas.org/infopolicy.html

=> s us 20040146955/pn
L1 1 US 20040146955/PN
(US2004146955/PN)

=> sel rn
E1 THROUGH E108 ASSIGNED

=> file reg
COST IN U.S. DOLLARS

| | SINCE FILE ENTRY | TOTAL SESSION |
|---|---|---|
| FULL ESTIMATED COST | 2.49 | 2.70 |

FILE 'REGISTRY' ENTERED AT 12:44:43 ON 28 SEP 2006
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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 27 SEP 2006 HIGHEST RN 909000-49-3
DICTIONARY FILE UPDATES: 27 SEP 2006 HIGHEST RN 909000-49-3

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 30, 2006

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/ONLINE/UG/regprops.html

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L2 108 (138-39-6/BI OR 3523-95-3/BI OR 35303-76-5/BI OR 63-74-1/BI OR 120-97-8/BI OR 120279-96-1/BI OR 121-30-2/BI OR 138-41-0/BI OR 138890-62-7/BI OR 14949-00-9/BI OR 165668-41-7/BI OR 2153-13-1/BI OR 215998-40-6/BI OR 215998-42-8/BI OR 215998-44-0/BI OR 215998-46-2/BI OR 215998-48-4/BI OR 215998-50-8/BI OR 215998-52-0/BI OR 215998-54-2/BI OR 215998-56-4/BI OR 215998-58-6/BI OR 215998-60-0/BI OR 215998-62-2/BI OR 215998-64-4/BI OR 215998-66-6/BI OR 215998-68-8/BI OR 215998-70-2/BI OR 215998-72-4/BI OR 215998-74-6/BI OR 215998-76-8/BI OR 215998-78-0/BI OR 215998-80-4/BI OR 215998-82-6/BI OR 215998-84-8/BI OR 215998-86-0/BI OR 215998-88-2/BI OR 215998-90-6/BI OR 215998-92-8/BI OR 215998-94-0/BI OR 215998-96-2/BI OR 215998-98-4/BI OR 215999-00-1/BI OR 215999-02-3/BI OR 215999-04-5/BI OR 215999-06-7/BI OR 215999-08-9/BI OR 215999-10-3/BI OR 215999-12-5/BI OR 215999-14-7/BI OR 215999-16-9/BI OR 215999-18-1/BI OR 216885-10-8/BI OR 2368-84-5/BI OR 244122-00-7/BI OR 259131-75-4/BI OR 2992

=> file caplus

| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
|---|---|---|
| FULL ESTIMATED COST | 0.44 | 3.14 |

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FILE COVERS 1907 - 28 Sep 2006 VOL 145 ISS 14
FILE LAST UPDATED: 27 Sep 2006 (20060927/ED)

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=> s l2
L3       22388 L2

=> s l2/thu
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        816051 THU/RL
L4        1169 L2/THU
                (L2 (L) THU/RL)

=> s cancer? or tumor? or neoplas?
        307106 CANCER?
        442741 TUMOR?
        464671 NEOPLAS?
L5      733490 CANCER? OR TUMOR? OR NEOPLAS?

=> s l4 (l) l5
L6          67 L4 (L) L5

=> s l6 not py>2002
       4389687 PY>2002
L7          18 L6 NOT PY>2002

=> d ibib 1-18

L7   ANSWER 1 OF 18  CAPLUS  COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:         2003:153905  CAPLUS
DOCUMENT NUMBER:          138:265037
TITLE:                    Indisulam Eisai
AUTHOR(S):                Supuran, Claudiu T.
CORPORATE SOURCE:         Universita degli Studi di Firenze, Dipartimento di
                          Chimica, Sesto Fiorentino, I-50019, Italy
SOURCE:                   IDrugs (2002), 5(11), 1075-1079
                          CODEN: IDRUFN; ISSN: 1369-7056
PUBLISHER:                PharmaPress Ltd.
DOCUMENT TYPE:            Journal; General Review
LANGUAGE:                 English
REFERENCE COUNT:          33    THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS
                                RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7   ANSWER 2 OF 18  CAPLUS  COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:         2002:875612  CAPLUS
DOCUMENT NUMBER:          138:395176
TITLE:                    E7070: a novel synthetic sulfonamide targeting the
                          cell cycle progression for the treatment of cancer
AUTHOR(S):                van Kesteren, Charlotte; Beijnen, Jos H.; Schellens,
                          Jan H. M.
CORPORATE SOURCE:         Department of Pharmacy and Pharmacology, The
                          Netherlands Cancer Institute/Slotervaart Hospital,
                          Amsterdam, 1066 EC, Neth.
SOURCE:                   Anti-Cancer Drugs (2002), 13(10), 989-997
                          CODEN: ANTDEV; ISSN: 0959-4973
PUBLISHER:                Lippincott Williams & Wilkins
DOCUMENT TYPE:            Journal; General Review
LANGUAGE:                 English
REFERENCE COUNT:          33    THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS
                                RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7   ANSWER 3 OF 18  CAPLUS  COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:         2002:804494  CAPLUS
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DOCUMENT NUMBER: 138:362245
TITLE: An excretion balance and pharmacokinetic study of the novel anticancer agent E7070 in cancer patients
AUTHOR(S): van den Bongard, H. J. G. Desiree; Pluim, Dick; Rosing, Hilde; Nan-Offeringa, Lianda; Schot, Margaret; Ravic, Miroslav; Schellens, Jan H. M.; Beijnen, Jos H.
CORPORATE SOURCE: Department of Pharmacy and Pharmacology, Slotervaart Hospital/The Netherlands Cancer Institute, Amsterdam, 1066 EC, Neth.
SOURCE: Anti-Cancer Drugs (2002), 13(8), 807-814
CODEN: ANTDEV; ISSN: 0959-4973
PUBLISHER: Lippincott Williams & Wilkins
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 4 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:708041 CAPLUS
DOCUMENT NUMBER: 137:241842
TITLE: Phase I and pharmacokinetic study of E7070, a novel chloroindolyl sulfonamide cell-cycle inhibitor, administered as a one-hour infusion every three weeks in patients with advanced cancer
AUTHOR(S): Raymond, E.; ten Bokkel Huinink, W. W.; Taieb, J.; Beijnen, J. H.; Faivre, S.; Wanders, J.; Ravic, M.; Fumoleau, P.; Armand, J. P.; Schellens, J. H. M.
CORPORATE SOURCE: European Organization for the Research and Treatment of Cancer Early Clinical Study Group, Institut Gustave-Roussy, Villejuif, 94805, Fr.
SOURCE: Journal of Clinical Oncology (2002), 20(16), 3508-3521
CODEN: JCONDN; ISSN: 0732-183X
PUBLISHER: Lippincott Williams & Wilkins
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 5 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:603243 CAPLUS
DOCUMENT NUMBER: 138:163096
TITLE: Acetazolamide suppresses tumor metastasis and related protein expression in mice bearing Lewis lung carcinoma
AUTHOR(S): Xiang, Yang; Ma, Bing; Li, Tao; Yu, He-Ming; Li, Xue-Jun
CORPORATE SOURCE: Department of Pharmacology, School of Basic Medical Sciences, Peking University, Beijing, 100083, Peop. Rep. China
SOURCE: Acta Pharmacologica Sinica (2002), 23(8), 745-751
CODEN: APSCG5; ISSN: 1671-4083
PUBLISHER: Science Press
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 6 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:346758 CAPLUS
DOCUMENT NUMBER: 138:61168
TITLE: Transnasal chemotherapy of the brain tumor utilizing the direct transport pathway between the nose and the cerebrospinal fluid
AUTHOR(S): Sakane, T.; Yamashita, S.; Yata, N.; Sezaki, H.; Tokunaga, Y.; Shibata, S.

CORPORATE SOURCE: Faculty of Pharmaceutical Sciences, Setsunan University, Osaka, 573-0101, Japan
SOURCE: Proceedings - 28th International Symposium on Controlled Release of Bioactive Materials and 4th Consumer & Diversified Products Conference, San Diego, CA, United States, June 23-27, 2001 (2001), Volume 1, 225-226. Controlled Release Society: Minneapolis, Minn.
CODEN: 69CNY8
DOCUMENT TYPE: Conference
LANGUAGE: English
REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 7 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:724918 CAPLUS
DOCUMENT NUMBER: 136:395443
TITLE: Mechanisms of action of the novel sulfonamide anticancer agent E7070 on cell cycle progression in human non-small cell lung cancer cells
AUTHOR(S): Fukuoka, Kazuya; Usuda, Jitsuo; Iwamoto, Yasuo; Fukumoto, Hisao; Nakamura, Takashi; Yoneda, Takahiro; Narita, Nobuhiro; Saijo, Nagahiro; Nishio, Kazuto
CORPORATE SOURCE: Pharmacology Division, National Cancer Center Research Institute, Tokyo, Japan
SOURCE: Investigational New Drugs (2001), 19(3), 219-227
CODEN: INNDDK; ISSN: 0167-6997
PUBLISHER: Kluwer Academic Publishers
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 8 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:455364 CAPLUS
DOCUMENT NUMBER: 133:38216
TITLE: Preparation of sulfanilamide derivative for diagnosis and treatment of tumor
INVENTOR(S): Tan, Lisong; Li, Libin; Su, Bo
PATENT ASSIGNEE(S): Shanghai No.1 Pulmonary Department Hospital, Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 24 pp.
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| CN 1214264 | A | 19990421 | CN 1997-106657 | 19971015 |
| PRIORITY APPLN. INFO.: | | | CN 1997-106657 | 19971015 |

L7 ANSWER 9 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:176258 CAPLUS
DOCUMENT NUMBER: 132:303120
TITLE: Carbonic anhydrase inhibitor suppresses invasion of renal cancer cells in vitro
AUTHOR(S): Parkkila, Seppo; Rajaniemi, Hannu; Parkkila, Anna-Kaisa; Kivela, Jyrki; Waheed, Abdul; Pastorekova, Silvia; Pastorek, Jaromir; Sly, William S.
CORPORATE SOURCE: Departments of Anatomy and Cell Biology, Clinical Chemistry, 90014 University of Oulu, Finland
SOURCE: Proceedings of the National Academy of Sciences of the United States of America (2000), 97(5), 2220-2224

CODEN: PNASA6; ISSN: 0027-8424
PUBLISHER: National Academy of Sciences
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 10 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:712802 CAPLUS
DOCUMENT NUMBER: 132:227295
TITLE: Transnasal delivery of anticancer drugs to the brain tumor: a new strategy for brain tumor chemotherapy
AUTHOR(S): Shingaki, Tomotaka; Sakane, Toshiyasu; Yamashita, Shinji; Sezaki, Hitoshi; Tokunaga, Yoshiharu; Shibata, Shobu
CORPORATE SOURCE: Faculty of Pharmaceutical Sciences, Setsunan University, Setsunan, Japan
SOURCE: Drug Delivery System (1999), 14(5), 365-371
CODEN: DDSYEI; ISSN: 0913-5006
PUBLISHER: Nippon DDS Gakkai Jimukyoku
DOCUMENT TYPE: Journal
LANGUAGE: Japanese

L7 ANSWER 11 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:773985 CAPLUS
DOCUMENT NUMBER: 130:248135
TITLE: Chinese herbs nephropathy-associated slimming regimen induces tumors in the forestomach but no interstitial nephropathy in rats
AUTHOR(S): Cosyns, Jean-Pierre; Goebbels, Rose-Marie; Liberton, Vinciane; Schmeiser, Heinz H.; Bieler, Christian A.; Bernard, Alfred M.
CORPORATE SOURCE: Cliniques Universitaires St. Luc, Department of Pathology, ANPS 1712 Catholic University of Louvain Medical School, Brussels, B-1200, Belg.
SOURCE: Archives of Toxicology (1998), 72(11), 738-743
CODEN: ARTODN; ISSN: 0340-5761
PUBLISHER: Springer-Verlag
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 12 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:750281 CAPLUS
DOCUMENT NUMBER: 130:208022
TITLE: Carbonic anhydrase II as a marker of malignant features for colorectal cancer
AUTHOR(S): Bekku, Shinya; Yamamoto, Tetsuhisa; Mochizuki, Hidetaka
CORPORATE SOURCE: Department of First Surgery, National Defence Medical College, Japan
SOURCE: Igaku no Ayumi (1998), 186(12), 891-892
CODEN: IGAYAY; ISSN: 0039-2359
PUBLISHER: Ishiyaku Shuppan
DOCUMENT TYPE: Journal
LANGUAGE: Japanese

L7 ANSWER 13 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:640364 CAPLUS
DOCUMENT NUMBER: 129:242205
TITLE: Rapid method of cancer diagnosis by measuring activation of carbonic anhydrase II by blood serum tumor markers
INVENTOR(S): Puscas, Ioan; Puscas, Iuliana Carmen; Coltau, Marcela;

Domuta, Gabriela; Baican, Michael
PATENT ASSIGNEE(S): Rom.
SOURCE: PCT Int. Appl., 23 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 9841649 | A2 | 19980924 | WO 1998-EP1465 | 19980313 |
| WO 9841649 | A3 | 19981223 | | |
| W: AL, AU, BB, BG, BR, CA, CN, CU, CZ, EE, GE, GW, HU, ID, IL, IS, JP, KP, KR, LC, LK, LR, LT, LV, MG, MN, MX, NO, NZ, PL, RO, SG, SI, SK, SL, TR, TT, UA, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | | |
| RO 114835 | B3 | 19990730 | RO 1997-502 | 19970317 |
| CA 2284632 | AA | 19980924 | CA 1998-2284632 | 19980313 |
| AU 9867298 | A1 | 19981012 | AU 1998-67298 | 19980313 |
| AU 738843 | B2 | 20010927 | | |
| EP 972072 | A2 | 20000119 | EP 1998-912475 | 19980313 |
| EP 972072 | B1 | 20011121 | | |
| R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, SI, LT, FI, RO | | | | |
| BR 9808373 | A | 20000523 | BR 1998-8373 | 19980313 |
| NZ 337850 | A | 20010727 | NZ 1998-337850 | 19980313 |
| JP 2001524815 | T2 | 20011204 | JP 1998-540117 | 19980313 |
| AT 209256 | E | 20011215 | AT 1998-912475 | 19980313 |
| MX 9908488 | A | 20000531 | MX 1999-8488 | 19990915 |
| PRIORITY APPLN. INFO.: | | | RO 1997-502 A | 19970317 |
| | | | WO 1998-EP1465 W | 19980313 |

L7 ANSWER 14 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:465838 CAPLUS
DOCUMENT NUMBER: 129:228986
TITLE: Immunohistochemical study of colorectal tumors for expression of a novel transmembrane carbonic anhydrase, MN/CA IX, with potential value as a marker of cell proliferation
AUTHOR(S): Saarnio, Juha; Parkkila, Seppo; Parkkila, Anna-Kaisa; Haukipuro, Kari; Pastorekova, Silvia; Pastorek, Jaromir; Kairaluoma, Matti I.; Karttunen, Tuomo J.
CORPORATE SOURCE: Department of Surgery, University of Oulu, Oulu, SF-90220, Finland
SOURCE: American Journal of Pathology (1998), 153(1), 279-285
CODEN: AJPAA4; ISSN: 0002-9440
PUBLISHER: American Society for Investigative Pathology
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 15 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:334002 CAPLUS
DOCUMENT NUMBER: 129:51697
TITLE: The immunoassay of carbonic anhydrase for screening colon cancer
INVENTOR(S): Yokoyama, Yukio
PATENT ASSIGNEE(S): Yokoyama, Yukio, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 2 pp.
CODEN: JKXXAF

DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| JP 10132822 | A2 | 19980522 | JP 1996-327494 | 19961101 |
| PRIORITY APPLN. INFO.: | | | JP 1996-327494 | 19961101 |

L7 ANSWER 16 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1997:537618 CAPLUS
DOCUMENT NUMBER: 127:130994
TITLE: Use of carbonic anhydrase inhibitors to prepare a drug for cancer therapy
INVENTOR(S): Lang, Hans Jochen; Gericke, Dietmar
PATENT ASSIGNEE(S): Hoechst A.-G., Germany; Lang, Hans Jochen; Gericke, Dietmar
SOURCE: PCT Int. Appl., 16 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
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| WO 9725039 | A1 | 19970717 | WO 1996-EP5793 | 19961220 |
| W: AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GE, HU, IL, IS, JP, KG, KP, KR, KZ, LC, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TJ, TM, TR, TT, UA, US, UZ, VN | | | | |
| RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | | |
| DE 19600721 | A1 | 19970717 | DE 1996-19600721 | 19960112 |
| AU 9713046 | A1 | 19970801 | AU 1997-13046 | 19961220 |
| PRIORITY APPLN. INFO.: | | | DE 1996-19600721 A | 19960112 |
| | | | WO 1996-EP5793 W | 19961220 |

L7 ANSWER 17 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1996:262841 CAPLUS
DOCUMENT NUMBER: 124:314359
TITLE: A marker antigen for non-small cell lung cancer and a cDNA encoding it and their uses
INVENTOR(S): Torczynski, Richard M.; Bollon, Arthur P.
PATENT ASSIGNEE(S): Cytoclonal Pharmaceutics, Inc., USA
SOURCE: PCT Int. Appl., 86 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 9602552 | A1 | 19960201 | WO 1995-US9145 | 19950719 |
| W: AU, BR, CA, CN, FI, JP, KE, KR, LK, MN, MX, NO, NZ, PL, RU, UA, US | | | | |
| RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| US 5589579 | A | 19961231 | US 1994-276919 | 19940719 |
| CA 2195403 | AA | 19960201 | CA 1995-2195403 | 19950719 |
| AU 9533592 | A1 | 19960216 | AU 1995-33592 | 19950719 |
| AU 700915 | B2 | 19990114 | | |
| EP 804451 | A1 | 19971105 | EP 1995-930093 | 19950719 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE | | | | |
| BR 9508417 | A | 19971118 | BR 1995-8417 | 19950719 |

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     JP 10503087          T2    19980324    JP 1995-505257          19950719
     US 5773579           A     19980630    US 1997-776088          19970121
PRIORITY APPLN. INFO.:                      US 1994-276919      A   19940719
                                            WO 1995-US9145      W   19950719

L7   ANSWER 18 OF 18  CAPLUS  COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:        1970:475517  CAPLUS
DOCUMENT NUMBER:         73:75517
TITLE:                   Oncostatic activities of some fluoro compounds against
                         Ehrlich carcinoma in mice
AUTHOR(S):               Nakahara, Toru; Miyamoto, Fumiko; Kayama, Tokihiko
CORPORATE SOURCE:        Wakayama Univ., Wakayama, Japan
SOURCE:                  Wakayama Daigaku Gakugeigakubu Kiyo, Shizenkagaku
                         (1968), No. 18, 15-17
                         CODEN: WDGKAJ; ISSN: 0507-8318
DOCUMENT TYPE:           Journal
LANGUAGE:                Japanese


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     (FILE 'HOME' ENTERED AT 12:44:18 ON 28 SEP 2006)

     FILE 'CAPLUS' ENTERED AT 12:44:27 ON 28 SEP 2006
L1             1 S US 20040146955/PN
                 SEL RN

     FILE 'REGISTRY' ENTERED AT 12:44:43 ON 28 SEP 2006
L2           108 S E1-E108

     FILE 'CAPLUS' ENTERED AT 12:44:58 ON 28 SEP 2006
L3         22388 S L2
L4          1169 S L2/THU
L5        733490 S CANCER? OR TUMOR? OR NEOPLAS?
L6            67 S L4 (L) L5
L7            18 S L6 NOT PY>2002

=> s l7 and sulfonam?
         33901 SULFONAM?
L8            5 L7 AND SULFONAM?

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L8   ANSWER 1 OF 5  CAPLUS  COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:        2003:153905  CAPLUS
DOCUMENT NUMBER:         138:265037
TITLE:                   Indisulam Eisai
AUTHOR(S):               Supuran, Claudiu T.
CORPORATE SOURCE:        Universita degli Studi di Firenze, Dipartimento di
                         Chimica, Sesto Fiorentino, I-50019, Italy
SOURCE:                  IDrugs (2002), 5(11), 1075-1079
                         CODEN: IDRUFN; ISSN: 1369-7056
PUBLISHER:               PharmaPress Ltd.
DOCUMENT TYPE:           Journal; General Review
LANGUAGE:                English
REFERENCE COUNT:         33    THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS
                               RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8   ANSWER 2 OF 5  CAPLUS  COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:        2002:875612  CAPLUS
DOCUMENT NUMBER:         138:395176
TITLE:                   E7070: a novel synthetic sulfonamide
                         targeting the cell cycle progression for the treatment
                         of cancer
AUTHOR(S):               van Kesteren, Charlotte; Beijnen, Jos H.; Schellens,
```

Jan H. M.
CORPORATE SOURCE: Department of Pharmacy and Pharmacology, The Netherlands Cancer Institute/Slotervaart Hospital, Amsterdam, 1066 EC, Neth.
SOURCE: Anti-Cancer Drugs (2002), 13(10), 989-997
CODEN: ANTDEV; ISSN: 0959-4973
PUBLISHER: Lippincott Williams & Wilkins
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:804494 CAPLUS
DOCUMENT NUMBER: 138:362245
TITLE: An excretion balance and pharmacokinetic study of the novel anticancer agent E7070 in cancer patients
AUTHOR(S): van den Bongard, H. J. G. Desiree; Pluim, Dick; Rosing, Hilde; Nan-Offeringa, Lianda; Schot, Margaret; Ravic, Miroslav; Schellens, Jan H. M.; Beijnen, Jos H.
CORPORATE SOURCE: Department of Pharmacy and Pharmacology, Slotervaart Hospital/The Netherlands Cancer Institute, Amsterdam, 1066 EC, Neth.
SOURCE: Anti-Cancer Drugs (2002), 13(8), 807-814
CODEN: ANTDEV; ISSN: 0959-4973
PUBLISHER: Lippincott Williams & Wilkins
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:708041 CAPLUS
DOCUMENT NUMBER: 137:241842
TITLE: Phase I and pharmacokinetic study of E7070, a novel chloroindolyl sulfonamide cell-cycle inhibitor, administered as a one-hour infusion every three weeks in patients with advanced cancer
AUTHOR(S): Raymond, E.; ten Bokkel Huinink, W. W.; Taieb, J.; Beijnen, J. H.; Faivre, S.; Wanders, J.; Ravic, M.; Fumoleau, P.; Armand, J. P.; Schellens, J. H. M.
CORPORATE SOURCE: European Organization for the Research and Treatment of Cancer Early Clinical Study Group, Institut Gustave-Roussy, Villejuif, 94805, Fr.
SOURCE: Journal of Clinical Oncology (2002), 20(16), 3508-3521
CODEN: JCONDN; ISSN: 0732-183X
PUBLISHER: Lippincott Williams & Wilkins
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:724918 CAPLUS
DOCUMENT NUMBER: 136:395443
TITLE: Mechanisms of action of the novel sulfonamide anticancer agent E7070 on cell cycle progression in human non-small cell lung cancer cells
AUTHOR(S): Fukuoka, Kazuya; Usuda, Jitsuo; Iwamoto, Yasuo; Fukumoto, Hisao; Nakamura, Takashi; Yoneda, Takahiro; Narita, Nobuhiro; Saijo, Nagahiro; Nishio, Kazuto
CORPORATE SOURCE: Pharmacology Division, National Cancer Center Research Institute, Tokyo, Japan
SOURCE: Investigational New Drugs (2001), 19(3), 219-227
CODEN: INNDDK; ISSN: 0167-6997

PUBLISHER: Kluwer Academic Publishers
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d his

(FILE 'HOME' ENTERED AT 12:44:18 ON 28 SEP 2006)

FILE 'CAPLUS' ENTERED AT 12:44:27 ON 28 SEP 2006
L1 1 S US 20040146955/PN
SEL RN

FILE 'REGISTRY' ENTERED AT 12:44:43 ON 28 SEP 2006
L2 108 S E1-E108

FILE 'CAPLUS' ENTERED AT 12:44:58 ON 28 SEP 2006
L3 22388 S L2
L4 1169 S L2/THU
L5 733490 S CANCER? OR TUMOR? OR NEOPLAS?
L6 67 S L4 (L) L5
L7 18 S L6 NOT PY>2002
L8 5 S L7 AND SULFONAM?

=> d l7 ibib abs kwic 8, 9, 16

L7 ANSWER 8 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:455364 CAPLUS
DOCUMENT NUMBER: 133:38216
TITLE: Preparation of sulfanilamide derivative for diagnosis and treatment of tumor
INVENTOR(S): Tan, Lisong; Li, Libin; Su, Bo
PATENT ASSIGNEE(S): Shanghai No.1 Pulmonary Department Hospital, Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 24 pp.
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| CN 1214264 | A | 19990421 | CN 1997-106657 | 19971015 |

PRIORITY APPLN. INFO.: CN 1997-106657 19971015

AB The sulfanilamide derivative R1-1,4-phenylene-SO2-N(R2)-L-R3 (R1 = NH2, CH3, or CH3CONH, etc.; R2 = pyrimidinyl, pyrazinyl, or other heterocycle; L = polyglycol, metyleneformylhexanediamine, or methylenecarbonylaminohexanoic acid, etc.; and R3 = anti-tumor drug, or complexant for 111In, 99mTc, 188Re, 186Re, 90Y, or 67Cu, etc.) is used for diagnosis and treatment of tumor. The sulfanilamide intermediate (I) (N-acetylsulfadiazine-PEG-isopropanol-butanediamine) is prepared by dissolving sulfadiazine in NaOH solution, regulating pH to 10-11, precipitating with ethanol, polymerizing with epoxyethane at 85° for 3-5 d, terminating with methanol to obtain N-acetylsulfadiazine-PEG, acetylating with acetic anhydride in NaHCO3 buffer solution (pH 9.0-10.0), allowing to react with chloromethyloxirane at 50° for 3 h, and substituting with butanediamine in the presence of DCCI. The sulfanilamide intermediate (II) (N-acetylsulfadiazine-methylenecarboxylhexanediamine) is prepared by acetylating sulfadiazine with acetic anhydride for 30 min, dissolving in NaOH solution, condensation with iodoacetic acid at 55° and pH 10-11 for 5 h, substituting with hexanediamine in the presence of DCCI and in THF at 4° for 2, and extracting with butanol. The sulfanilamide derivative is prepared by dissolving (I)

in chloroform, condensation with cyclic DTPA for 24 h, precipitating with EtOAc, and recrystg. with chloroform or EtOAc. The sulfanilamide derivative-drug composite is prepared by condensation of the sulfanilamide derivative with activated drug in NaHCO3 buffer solution (pH 9.0) for 30 min, and separating with Sephadex G10 or LH20 column chromatog. Sulfadiazine may be replaced by sulfapyrazine. The activated drug is selected from carboxy-activated methotrexate, pentanedioic acid-activated mitomycin C, and pentanedioic acid-activated adriamycin.

IT 63-74-1D, Sulfanilamide, antitumor derivs. 10098-91-6D, 90Y, sulfanilamide complex, biological studies 14133-76-7D, Technetium, isotope of mass 99, sulfanilamide complex, biological studies 14378-26-8D, 188Re, sulfanilamide complex, biological studies 14998-63-1D, 186Re, sulfanilamide complex, biological studies 15750-15-9D, 111In, sulfanilamide complex, biological studies 15757-86-5D, 67Cu, sulfanilamide complex, biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(preparation of sulfanilamide derivative for diagnosis and treatment of tumor)

L7 ANSWER 9 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:176258 CAPLUS
DOCUMENT NUMBER: 132:303120
TITLE: Carbonic anhydrase inhibitor suppresses invasion of renal cancer cells in vitro
AUTHOR(S): Parkkila, Seppo; Rajaniemi, Hannu; Parkkila, Anna-Kaisa; Kivela, Jyrki; Waheed, Abdul; Pastorekova, Silvia; Pastorek, Jaromir; Sly, William S.
CORPORATE SOURCE: Departments of Anatomy and Cell Biology, Clinical Chemistry, 90014 University of Oulu, Finland
SOURCE: Proceedings of the National Academy of Sciences of the United States of America (2000), 97(5), 2220-2224
CODEN: PNASA6; ISSN: 0027-8424
PUBLISHER: National Academy of Sciences
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Acidification of the extracellular milieu of malignant tumors is reported to increase the invasive behavior of cancer cells. In normal tissues, production of acid is catalyzed by carbonic anhydrases (CAs), some of which are known to be overexpressed in certain cancers. To investigate the functional role of CA activity in such cancer cells, the authors analyzed the effect of acetazolamide, a potent CA inhibitor, on the invasive capacity of four renal carcinoma cell lines (Caki-1, Caki-2, ACHN, and A-498). The authors found that 10 μM acetazolamide inhibited the relative invasion rate of these cell lines between 18-74%. The Caki-2 and ACHN cell lines displayed the highest responsiveness, and their responses clearly depended on the acetazolamide concentration in the culture medium. Immunocytochem. and Western blotting results identified the presence of CA isoenzyme II in the cytoplasm of all four cell lines and CA XII on the plasma membrane in three of four cell lines. Because acetazolamide alone reduced invasiveness of these cancer cells in vitro, the authors conclude that the CAs overexpressed in these renal cancer cells contribute to invasiveness, at least in vitro, and suggest that CA inhibitors may also reduce invasiveness in other tumors that overexpress one or more CAs.

REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

IT 59-66-5, Acetazolamide
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(role of carbonic anhydrase in invasion of renal cancer cells in vitro and possible therapeutic role of carbonic anhydrase inhibitor

acetazolamide)

L7 ANSWER 16 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1997:537618 CAPLUS
DOCUMENT NUMBER: 127:130994
TITLE: Use of carbonic anhydrase inhibitors to prepare a drug for cancer therapy
INVENTOR(S): Lang, Hans Jochen; Gericke, Dietmar
PATENT ASSIGNEE(S): Hoechst A.-G., Germany; Lang, Hans Jochen; Gericke, Dietmar
SOURCE: PCT Int. Appl., 16 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 9725039 | A1 | 19970717 | WO 1996-EP5793 | 19961220 |
| W: AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GE, HU, IL, IS, JP, KG, KP, KR, KZ, LC, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TJ, TM, TR, TT, UA, US, UZ, VN | | | | |
| RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | | |
| DE 19600721 | A1 | 19970717 | DE 1996-19600721 | 19960112 |
| AU 9713046 | A1 | 19970801 | AU 1997-13046 | 19961220 |
| PRIORITY APPLN. INFO.: | | | DE 1996-19600721 A | 19960112 |
| | | | WO 1996-EP5793 W | 19961220 |

AB Carbonic anhydrase inhibitors such as acetazolamide are useful, alone or in association with chemotherapeutic agents, phys. treatments such as radiation therapy, or immunomodulators, for treatment of cancer (no data).
IT 59-66-5, Acetazolamide
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(use of carbonic anhydrase inhibitors for cancer therapy)

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| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
|---|---|---|
| FULL ESTIMATED COST | 51.27 | 54.41 |
| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE ENTRY | TOTAL SESSION |
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DICTIONARY FILE UPDATES: 27 SEP 2006 HIGHEST RN 909000-49-3

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L9            1 59-66-5
                (59-66-5/RN)

=> s l9 and l2
L10           1 L9 AND L2

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SQIDE   - IDE, plus sequence data
SQIDE3  - Same as SQIDE, but 3-letter amino acid codes are used
SQD     - Protein sequence data, includes RN
SQD3    - Same as SQD, but 3-letter amino acid codes are used
SQN     - Protein sequence name information, includes RN

CALC    - Table of calculated properties
EPROP   - Table of experimental properties
PROP    - EPROP and CALC
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CAN  -- CA Accession Number
CBIB -- CA Accession Number, plus Bibliographic Data (compressed)
IND  -- Index Data
IPC  -- International Patent Classification
PATS -- PI, SO
STD  -- BIB, IPC, and NCL

IABS -- ABS, indented, with text labels
IBIB -- BIB, indented, with text labels
ISTD -- STD format, indented

OBIB -------- AN, plus Bibliographic Data (original)
OIBIB ------- OBIB, indented with text labels

SBIB -------- BIB, no citations
SIBIB ------- IBIB, no citations
```

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The MAX format is the same as ALL.
The IALL format is the same as ALL with BIB ABS and IND indented,
with text labels.

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FULL ESTIMATED COST                                 0.44      54.85

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                                                   ENTRY    SESSION
CA SUBSCRIBER PRICE                                 0.00      -2.25

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     FILE 'CAPLUS' ENTERED AT 12:44:27 ON 28 SEP 2006
L1             1 S US 20040146955/PN
                 SEL RN

     FILE 'REGISTRY' ENTERED AT 12:44:43 ON 28 SEP 2006
L2           108 S E1-E108

     FILE 'CAPLUS' ENTERED AT 12:44:58 ON 28 SEP 2006
L3         22388 S L2
L4          1169 S L2/THU
L5        733490 S CANCER? OR TUMOR? OR NEOPLAS?
L6            67 S L4 (L) L5
L7            18 S L6 NOT PY>2002
L8             5 S L7 AND SULFONAM?

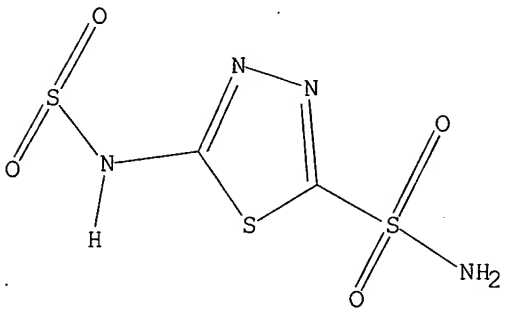
     FILE 'REGISTRY' ENTERED AT 12:50:27 ON 28 SEP 2006
L9             1 S 59-66-5
```

L10 1 S L9 AND L2

FILE 'CAPLUS' ENTERED AT 12:51:02 ON 28 SEP 2006

=> d l7 hitstr 1-18

L7 ANSWER 1 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
IT 165668-41-7, Indisulam
RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); PKT (Pharmacokinetics); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(indisulam for potential treatment of cancer)
RN 165668-41-7 CAPLUS
CN 1,4-Benzenedisulfonamide, N-(3-chloro-1H-indol-7-yl)- (9CI) (CA INDEX NAME)



L7 ANSWER 2 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
IT 165668-41-7, E7070
RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(E7070, a novel synthetic sulfonamide targeting the cell cycle progression for treatment of cancer)
RN 165668-41-7 CAPLUS
CN 1,4-Benzenedisulfonamide, N-(3-chloro-1H-indol-7-yl)- (9CI) (CA INDEX NAME)

/ Structure 2 in file .gra /

L7 ANSWER 3 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
IT 165668-41-7, E7070
RL: ADV (Adverse effect, including toxicity); PKT (Pharmacokinetics); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(E7070 excretion and pharmacokinetics in cancer patients)
RN 165668-41-7 CAPLUS
CN 1,4-Benzenedisulfonamide, N-(3-chloro-1H-indol-7-yl)- (9CI) (CA INDEX NAME)

/ Structure 3 in file .gra /

L7 ANSWER 4 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
IT 165668-41-7, E7070
RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); PKT (Pharmacokinetics); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(pharmacokinetic study of E7070 infusion, novel chloroindolyl sulfonamide cell-cycle inhibitor, in advanced cancer

patients)
RN 165668-41-7 CAPLUS
CN 1,4-Benzenedisulfonamide, N-(3-chloro-1H-indol-7-yl)- (9CI) (CA INDEX NAME)

/ Structure 4 in file .gra /

L7 ANSWER 5 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
IT 59-66-5, Acetazolamide
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(acetazolamide suppresses tumor metastasis and related protein expression in mice bearing Lewis lung carcinoma)
RN 59-66-5 CAPLUS
CN Acetamide, N-[5-(aminosulfonyl)-1,3,4-thiadiazol-2-yl]- (9CI) (CA INDEX NAME)

/ Structure 5 in file .gra /

L7 ANSWER 6 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
IT 59-66-5, Acetazolamide
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(brain tumor chemotherapy using nasal delivery of drug to cerebrospinal fluid: effect of excipients)
RN 59-66-5 CAPLUS
CN Acetamide, N-[5-(aminosulfonyl)-1,3,4-thiadiazol-2-yl]- (9CI) (CA INDEX NAME)

/ Structure 6 in file .gra /

L7 ANSWER 7 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
IT 165668-41-7, E7070
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(mechanisms of action of novel sulfonamide anticancer agent E7070 on cell cycle progression in human non-small cell lung cancer cells)
RN 165668-41-7 CAPLUS
CN 1,4-Benzenedisulfonamide, N-(3-chloro-1H-indol-7-yl)- (9CI) (CA INDEX NAME)

/ Structure 7 in file .gra /

L7 ANSWER 8 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
IT 63-74-1D, Sulfanilamide, antitumor derivs.
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(preparation of sulfanilamide derivative for diagnosis and treatment of tumor)
RN 63-74-1 CAPLUS
CN Benzenesulfonamide, 4-amino- (9CI) (CA INDEX NAME)

/ Structure 8 in file .gra /

L7 ANSWER 9 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
IT 59-66-5, Acetazolamide
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(role of carbonic anhydrase in invasion of renal cancer cells in vitro and possible therapeutic role of carbonic anhydrase inhibitor acetazolamide)
RN 59-66-5 CAPLUS
CN Acetamide, N-[5-(aminosulfonyl)-1,3,4-thiadiazol-2-yl]- (9CI) (CA INDEX NAME)

/ Structure 9 in file .gra /

L7 ANSWER 10 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
IT 59-66-5
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(transnasal delivery of anticancer drugs to brain tumor)
RN 59-66-5 CAPLUS
CN Acetamide, N-[5-(aminosulfonyl)-1,3,4-thiadiazol-2-yl]- (9CI) (CA INDEX NAME)

/ Structure 10 in file .gra /

L7 ANSWER 11 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
IT 59-66-5, Acetazolamide
RL: ADV (Adverse effect, including toxicity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(Chinese herbs nephropathy-associated slimming regimen induces tumors in the forestomach but no interstitial nephropathy in rats)
RN 59-66-5 CAPLUS
CN Acetamide, N-[5-(aminosulfonyl)-1,3,4-thiadiazol-2-yl]- (9CI) (CA INDEX NAME)

/ Structure 11 in file .gra /

L7 ANSWER 12 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
IT 9001-03-0
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(II; carbonic anhydrase II as a marker of malignant features for colorectal cancer)
RN 9001-03-0 CAPLUS
CN Dehydratase, carbonate (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L7 ANSWER 13 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
IT 9001-03-0, Carbonic anhydrase
RL: ANT (Analyte); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(II; rapid method of cancer diagnosis by measuring activation of carbonic anhydrase II by blood serum tumor markers)
RN 9001-03-0 CAPLUS
CN Dehydratase, carbonate (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L7 ANSWER 14 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
IT 9001-03-0, Carbonic anhydrase
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(isoenzyme IX; colorectal tumors expression of transmembrane carbonic anhydrase, MN/CA IX, with potential value as marker of cell proliferation in human)
RN 9001-03-0 CAPLUS
CN Dehydratase, carbonate (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L7 ANSWER 15 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
IT 9001-03-0, Carbonate anhydrase
RL: ANT (Analyte); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(fecal; immunoassay of carbonic anhydrase for screening colon cancer)
RN 9001-03-0 CAPLUS
CN Dehydratase, carbonate (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L7 ANSWER 16 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
IT 59-66-5, Acetazolamide
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(use of carbonic anhydrase inhibitors for cancer therapy)
RN 59-66-5 CAPLUS
CN Acetamide, N-[5-(aminosulfonyl)-1,3,4-thiadiazol-2-yl]- (9CI) (CA INDEX NAME)

/ Structure 12 in file .gra /

L7 ANSWER 17 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
IT 9001-03-0, Carbonic anhydrase
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(as marker for non-small cell lung cancer; marker antigen for non-small cell lung cancer and cDNA encoding it and their uses)
RN 9001-03-0 CAPLUS
CN Dehydratase, carbonate (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L7 ANSWER 18 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
IT 654-62-6
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(neoplasm inhibition by)
RN 654-62-6 CAPLUS
CN 1,3-Benzenedisulfonamide, 4-amino-6-(trifluoromethyl)- (9CI) (CA INDEX NAME)

/ Structure 13 in file .gra /

=> d l7 ibib abs hitstr 8

L7 ANSWER 8 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:455364 CAPLUS
DOCUMENT NUMBER: 133:38216
TITLE: Preparation of sulfanilamide derivative for diagnosis and treatment of tumor
INVENTOR(S): Tan, Lisong; Li, Libin; Su, Bo
PATENT ASSIGNEE(S): Shanghai No.1 Pulmonary Department Hospital, Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 24 pp.
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| CN 1214264 | A | 19990421 | CN 1997-106657 | 19971015 |
| PRIORITY APPLN. INFO.: | | | CN 1997-106657 | 19971015 |

AB The sulfanilamide derivative R1-1,4-phenylene-SO2-N(R2)-L-R3 (R1 = NH2, CH3, or CH3CONH, etc.; R2 = pyrimidinyl, pyrazinyl, or other heterocycle; L = polyglycol, metyleneformylhexanediamine, or methylenecarbonylaminohexanoic acid, etc.; and R3 = anti-tumor drug, or complexant for 111In, 99mTc, 188Re, 186Re, 90Y, or 67Cu, etc.) is used for diagnosis and treatment of tumor. The sulfanilamide intermediate (I) (N-acetylsulfadiazine-PEG-isopropanol-butanediamine) is prepared by dissolving sulfadiazine in NaOH solution, regulating pH to 10-11, precipitating with ethanol, polymerizing with epoxyethane at 85° for 3-5 d, terminating with methanol to obtain N-acetylsulfadiazine-PEG, acetylating with acetic anhydride in NaHCO3 buffer solution (pH 9.0-10.0), allowing to react with chloromethyloxirane at 50° for 3 h, and substituting with butanediamine in the presence of DCCI. The sulfanilamide intermediate (II) (N-acetylsulfadiazine-methylenecarboxylhexanediamine) is prepared by acetylating sulfadiazine with acetic anhydride for 30 min, dissolving in NaOH solution, condensation with iodoacetic acid at 55° and pH 10-11 for 5 h, substituting with hexanediamine in the presence of DCCI and in THF at 4° for 2, and extracting with butanol. The sulfanilamide derivative is prepared by dissolving (I) in chloroform, condensation with cyclic DTPA for 24 h, precipitating with EtOAc, and recrystg. with chloroform or EtOAc. The sulfanilamide derivative-drug composite is prepared by condensation of the sulfanilamide derivative with activated drug in NaHCO3 buffer solution (pH 9.0) for 30 min, and separating with Sephadex G10 or LH20 column chromatog. Sulfadiazine may be replaced by sulfapyrazine. The activated drug is selected from carboxy-activated methotrexate, pentanedioic acid-activated mitomycin C, and pentanedioic acid-activated adriamycin.

IT 63-74-1D, Sulfanilamide, antitumor derivs.
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(preparation of sulfanilamide derivative for diagnosis and treatment of tumor)
RN 63-74-1 CAPLUS
CN Benzenesulfonamide, 4-amino- (9CI) (CA INDEX NAME)

/ Structure 14 in file .gra /

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=>

---Logging off of STN---


=>
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=> LOG Y

COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                      ENTRY    SESSION
FULL ESTIMATED COST                                   39.41      94.26

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                      ENTRY    SESSION
CA SUBSCRIBER PRICE                                   -0.75      -3.00

STN INTERNATIONAL LOGOFF AT 12:53:26 ON 28 SEP 2006


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PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2

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 NEWS  1          Web Page URLs for STN Seminar Schedule - N. America
 NEWS  2          "Ask CAS" for self-help around the clock
 NEWS  3  OCT 23  The Derwent World Patents Index suite of databases on STN
                  has been enhanced and reloaded
 NEWS  4  OCT 30  CHEMLIST enhanced with new search and display field
 NEWS  5  NOV 03  JAPIO enhanced with IPC 8 features and functionality
 NEWS  6  NOV 10  CA/CAplus F-Term thesaurus enhanced
 NEWS  7  NOV 10  STN Express with Discover! free maintenance release Version
                  8.01c now available
 NEWS  8  NOV 20  CA/CAplus to MARPAT accession number crossover limit increased
                  to 50,000
 NEWS  9  DEC 01  CAS REGISTRY updated with new ambiguity codes
 NEWS 10  DEC 11  CAS REGISTRY chemical nomenclature enhanced
 NEWS 11  DEC 14  WPIDS/WPINDEX/WPIX manual codes updated
 NEWS 12  DEC 14  GBFULL and FRFULL enhanced with IPC 8 features and
                  functionality
 NEWS 13  DEC 18  CA/CAplus pre-1967 chemical substance index entries enhanced
                  with preparation role
 NEWS 14  DEC 18  CA/CAplus patent kind codes updated
 NEWS 15  DEC 18  MARPAT to CA/CAplus accession number crossover limit increased
                  to 50,000
 NEWS 16  DEC 18  MEDLINE updated in preparation for 2007 reload
 NEWS 17  DEC 27  CA/CAplus enhanced with more pre-1907 records
 NEWS 18  JAN 08  CHEMLIST enhanced with New Zealand Inventory of Chemicals
 NEWS 19  JAN 16  CA/CAplus Company Name Thesaurus enhanced and reloaded
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 NEWS 20  JAN 16  IPC version 2007.01 thesaurus available on STN
 NEWS 21  JAN 16  WPIDS/WPINDEX/WPIX enhanced with IPC 8 reclassification data
 NEWS 22  JAN 22  CA/CAplus updated with revised CAS roles
 NEWS 23  JAN 22  CA/CAplus enhanced with patent applications from India
 NEWS 24  JAN 29  PHAR reloaded with new search and display fields
 NEWS 25  JAN 29  CAS Registry Number crossover limit increased to 300,000 in
                  multiple databases

 NEWS EXPRESS  NOVEMBER 10 CURRENT WINDOWS VERSION IS V8.01c, CURRENT
               MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
               AND CURRENT DISCOVER FILE IS DATED 25 SEPTEMBER 2006.

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 NEWS LOGIN    Welcome Banner and News Items
 NEWS IPC8     For general information regarding STN implementation of IPC 8
 NEWS X25      X.25 communication option no longer available

Enter NEWS followed by the item number or name to see news on that
specific topic.

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FILE 'HOME' ENTERED AT 17:01:43 ON 31 JAN 2007

=> file reg
COST IN U.S. DOLLARS                                    SINCE FILE      TOTAL
                                                           ENTRY    SESSION
FULL ESTIMATED COST                                         0.21       0.21

FILE 'REGISTRY' ENTERED AT 17:01:52 ON 31 JAN 2007
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STRUCTURE FILE UPDATES:   30 JAN 2007  HIGHEST RN 918865-48-2
DICTIONARY FILE UPDATES:  30 JAN 2007  HIGHEST RN 918865-48-2

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on property searching in REGISTRY, refer to:

http://www.cas.org/ONLINE/UG/regprops.html

=> s acetazolamide/cn
L1             1 ACETAZOLAMIDE/CN

=> file caplus
COST IN U.S. DOLLARS                                    SINCE FILE      TOTAL
```

| | ENTRY | SESSION |
|---|---|---|
| FULL ESTIMATED COST | 5.40 | 5.61 |

FILE 'CAPLUS' ENTERED AT 17:02:23 ON 31 JAN 2007
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FILE COVERS 1907 - 31 Jan 2007 VOL 146 ISS 6
FILE LAST UPDATED: 30 Jan 2007 (20070130/ED)

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=> s l1/dgn
          2763 L1
         73491 DGN/RL
L2          11 L1/DGN
                (L1 (L) DGN/RL)

=> s l1
L3        2763 L1

=> s tumor? or cancer? or neoplas?
        456608 TUMOR?
        319712 CANCER?
        479213 NEOPLAS?
L4      756547 TUMOR? OR CANCER? OR NEOPLAS?

=> s l3 (L) l4
L5          37 L3 (L) L4

=> s l5 and l2
L6           0 L5 AND L2

=> s sulfonamid?
L7       34242 SULFONAMID?

=> s l7 (L) l4
L8         672 L7 (L) L4

=> s diagnos?
L9      275619 DIAGNOS?

=> s l9 and l8
L10         22 L9 AND L8

=> s carbonic anhydrase
        44312 CARBONIC
            1 CARBONICS
         44313 CARBONIC
                (CARBONIC OR CARBONICS)
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          12249 ANHYDRASE
            713 ANHYDRASES
          12291 ANHYDRASE
                (ANHYDRASE OR ANHYDRASES)
L11       12141 CARBONIC ANHYDRASE
                (CARBONIC(W)ANHYDRASE)

=> s l11 and l2
L12           0 L11 AND L2

=> s l12 and l3
L13           0 L12 AND L3

=> s l11 and l3
L14        1069 L11 AND L3

=> s l14 and l4
L15          45 L14 AND L4

=> s l14 and l5
L16          13 L14 AND L5

=> s l16 not py>2002
       4850131 PY>2002
L17           4 L16 NOT PY>2002

=> d ibib 1-4

L17  ANSWER 1 OF 4  CAPLUS  COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER:         2000:176258  CAPLUS
DOCUMENT NUMBER:          132:303120
TITLE:                    Carbonic anhydrase inhibitor
                          suppresses invasion of renal cancer cells in vitro
AUTHOR(S):                Parkkila, Seppo; Rajaniemi, Hannu; Parkkila,
                          Anna-Kaisa; Kivela, Jyrki; Waheed, Abdul; Pastorekova,
                          Silvia; Pastorek, Jaromir; Sly, William S.
CORPORATE SOURCE:         Departments of Anatomy and Cell Biology, Clinical
                          Chemistry, 90014 University of Oulu, Finland
SOURCE:                   Proceedings of the National Academy of Sciences of the
                          United States of America (2000), 97(5), 2220-2224
                          CODEN: PNASA6; ISSN: 0027-8424
PUBLISHER:                National Academy of Sciences
DOCUMENT TYPE:            Journal
LANGUAGE:                 English
REFERENCE COUNT:          26    THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS
                                RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17  ANSWER 2 OF 4  CAPLUS  COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER:         1997:537618  CAPLUS
DOCUMENT NUMBER:          127:130994
TITLE:                    Use of carbonic anhydrase
                          inhibitors to prepare a drug for cancer therapy
INVENTOR(S):              Lang, Hans Jochen; Gericke, Dietmar
PATENT ASSIGNEE(S):       Hoechst A.-G., Germany; Lang, Hans Jochen; Gericke,
                          Dietmar
SOURCE:                   PCT Int. Appl., 16 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 German
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.           KIND   DATE       APPLICATION NO.         DATE
     ---------------      ----   --------   --------------------    --------
     WO 9725039            A1    19970717   WO 1996-EP5793          19961220
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W: AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GE, HU, IL, IS, JP, KG, KP, KR, KZ, LC, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TJ, TM, TR, TT, UA, US, UZ, VN
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

| | | | | | |
|---|---|---|---|---|---|
| DE 19600721 | A1 | 19970717 | DE 1996-19600721 | | 19960112 |
| AU 9713046 | A | 19970801 | AU 1997-13046 | | 19961220 |
| PRIORITY APPLN. INFO.: | | | DE 1996-19600721 | A | 19960112 |
| | | | WO 1996-EP5793 | W | 19961220 |

L17 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1991:178180 CAPLUS
DOCUMENT NUMBER: 114:178180
TITLE: Treatment of humoral hypercalcemia of malignancy in rats with inhibitors of carbonic anhydrase
AUTHOR(S): Brown, Gregory M.; Morris, Carol A.; Mitnick, Mary Ann; Insogna, Karl L.
CORPORATE SOURCE: Sch. Med., Yale Univ., New Haven, CT, 06510, USA
SOURCE: Journal of Bone and Mineral Research (1990), 5(10), 1037-41
CODEN: JBMREJ; ISSN: 0884-0431
DOCUMENT TYPE: Journal
LANGUAGE: English

L17 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1986:10594 CAPLUS
DOCUMENT NUMBER: 104:10594
TITLE: Antitumor pharmaceuticals containing 1-phthalidyl-5-fluorouracil and sulfonamides
PATENT ASSIGNEE(S): Shionogi and Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| JP 60126219 | A | 19850705 | JP 1983-233269 | 19831209 |
| PRIORITY APPLN. INFO.: | | | JP 1983-233269 | 19831209 |

=> d kwic 2-4

L17 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN
TI Use of carbonic anhydrase inhibitors to prepare a drug for cancer therapy
AB Carbonic anhydrase inhibitors such as acetazolamide are useful, alone or in association with chemotherapeutic agents, phys. treatments such as radiation therapy, or. . .
ST carbonic anhydrase inhibitor cancer therapy
IT Antitumor agents
(use of carbonic anhydrase inhibitors for cancer therapy)
IT 9001-03-0, Carbonic anhydrase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(inhibitors; use of carbonic anhydrase inhibitors for cancer therapy)
IT 59-66-5, Acetazolamide
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(use of carbonic anhydrase inhibitors for
cancer therapy)

L17 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN
TI Treatment of humoral hypercalcemia of malignancy in rats with inhibitors of carbonic anhydrase
AB The enzyme carbonic anhydrase has been suggested as a critical participant in osteoclast-mediated bone resorption. In humoral hypercalcemia of malignancy (HHM), intense osteoclastic bone resorption is principally responsible for the observed hypercalcemia. The effect of the carbonic anhydrase inhibitor acetazolamide on the hypercalcemia induced by the H500 Leydig cell tumor in Fisher rats, a well-described model of HHM,. . . in serum phosphorus, urine calcium, urine phosphorus, or nephrogenous cAMP excretion between the two groups. Acetazolamide and HTs [5-(3-hydroxybenzoyl)-2-thiophenesulfonamide], another carbonic anhydrase inhibitor, both significantly inhibited in vitro bone resorption induced by 5 + 10-9 M 36Tyr(1-36)-PTHrP-amide (PTHrP, parathyroid hormone-related protein). Acetazolamide. . .
ST carbonic anhydrase inhibitor hypercalcemia malignancy
IT Osteoclast
(bone resorption by, carbonic anhydrase inhibitors effect on, in neoplasm)
IT Neoplasm
(hypercalcemia in, carbonic anhydrase inhibitors treatment of, bone resorption response in)
IT Resorption
(of bone, carbonic anhydrase inhibitors effect on, in neoplasm)
IT Bone, metabolism
(resorption of, carbonic anhydrase inhibitors effect on)
IT 59-66-5, Acetazolamide 114891-23-5, 5-(3-Hydroxybenzoyl)-2-thiophenesulfonamide
RL: BIOL (Biological study)
(hypercalcemia treatment with, in neoplasm, bone resorption response in)
IT 9001-03-0, Carbonic anhydrase
RL: BIOL (Biological study)
(inhibitors of, hypercalcemia treatment with, in neoplasm, bone resorption response in)
IT 7440-70-2, Calcium, biological studies
RL: BIOL (Biological study)
(metabolic disorders, hypercalcemia, treatment of, with carbonic anhydrase inhibitors, in neoplasm)

L17 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN
AB Antitumor formulations consist of 1-phthalidyl-5-fluoromuracil (I) [81820-68-0] and carbonic anhydrase-inhibiting sulfonamides (R1SO2NR2R3, where R1 = substituted thienyl, thiazolyl, thiadiazolyl, Ph; R2, R3 = H, substituted alkyl, aryl, acyl and Bz). . . I. In Yoshida sarcoma-bearing mice, combined oral administration of I (400 mg/kg/day) and sulfanilamide [63-74-1] (200 mg/kg/day) decreased the relative tumor size from 1.00 in controls to 0.18 compared to only 0.41 when I is administered alone. Thus, tablets were prepared containing I 100, acetazolamide [59-66-5] 10, lactose 200, wheat starch 01, hydroxypropylcellulose 4 and Mg stearate 2 mg.
IT 59-66-5 63-74-1 72-14-0 133-67-5 515-64-0 723-46-6 4563-84-2
RL: BIOL (Biological study)
(antitumor pharmaceuticals containing phthalidylfluorouracil and)

=>

---Logging off of STN---

=>
Executing the logoff script...

=> LOG Y

| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
|---|---|---|
| FULL ESTIMATED COST | 32.07 | 37.68 |

| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE ENTRY | TOTAL SESSION |
|---|---|---|
| CA SUBSCRIBER PRICE | -2.34 | -2.34 |

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PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2

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| | | | |
|---|---|---|---|
| NEWS | 1 | | Web Page URLs for STN Seminar Schedule - N. America |
| NEWS | 2 | | "Ask CAS" for self-help around the clock |
| NEWS | 3 | OCT 23 | The Derwent World Patents Index suite of databases on STN has been enhanced and reloaded |
| NEWS | 4 | OCT 30 | CHEMLIST enhanced with new search and display field |
| NEWS | 5 | NOV 03 | JAPIO enhanced with IPC 8 features and functionality |
| NEWS | 6 | NOV 10 | CA/CAplus F-Term thesaurus enhanced |
| NEWS | 7 | NOV 10 | STN Express with Discover! free maintenance release Version 8.01c now available |
| NEWS | 8 | NOV 20 | CA/CAplus to MARPAT accession number crossover limit increased to 50,000 |
| NEWS | 9 | DEC 01 | CAS REGISTRY updated with new ambiguity codes |
| NEWS | 10 | DEC 11 | CAS REGISTRY chemical nomenclature enhanced |
| NEWS | 11 | DEC 14 | WPIDS/WPINDEX/WPIX manual codes updated |
| NEWS | 12 | DEC 14 | GBFULL and FRFULL enhanced with IPC 8 features and functionality |
| NEWS | 13 | DEC 18 | CA/CAplus pre-1967 chemical substance index entries enhanced with preparation role |
| NEWS | 14 | DEC 18 | CA/CAplus patent kind codes updated |
| NEWS | 15 | DEC 18 | MARPAT to CA/CAplus accession number crossover limit increased to 50,000 |
| NEWS | 16 | DEC 18 | MEDLINE updated in preparation for 2007 reload |
| NEWS | 17 | DEC 27 | CA/CAplus enhanced with more pre-1907 records |
| NEWS | 18 | JAN 08 | CHEMLIST enhanced with New Zealand Inventory of Chemicals |
| NEWS | 19 | JAN 16 | CA/CAplus Company Name Thesaurus enhanced and reloaded |
| NEWS | 20 | JAN 16 | IPC version 2007.01 thesaurus available on STN |
| NEWS | 21 | JAN 16 | WPIDS/WPINDEX/WPIX enhanced with IPC 8 reclassification data |
| NEWS | 22 | JAN 22 | CA/CAplus updated with revised CAS roles |

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 NEWS 23  JAN 22  CA/CAplus enhanced with patent applications from India
 NEWS 24  JAN 29  PHAR reloaded with new search and display fields
 NEWS 25  JAN 29  CAS Registry Number crossover limit increased to 300,000 in
                  multiple databases

 NEWS EXPRESS  NOVEMBER 10 CURRENT WINDOWS VERSION IS V8.01c, CURRENT
               MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
               AND CURRENT DISCOVER FILE IS DATED 25 SEPTEMBER 2006.

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 NEWS LOGIN     Welcome Banner and News Items
 NEWS IPC8      For general information regarding STN implementation of IPC 8
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FILE 'HOME' ENTERED AT 14:45:08 ON 01 FEB 2007

=> file reg
COST IN U.S. DOLLARS                                    SINCE FILE      TOTAL
                                                           ENTRY    SESSION
FULL ESTIMATED COST                                         0.21       0.21

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DICTIONARY FILE UPDATES:  31 JAN 2007  HIGHEST RN 918932-71-5

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http://www.cas.org/ONLINE/UG/regprops.html

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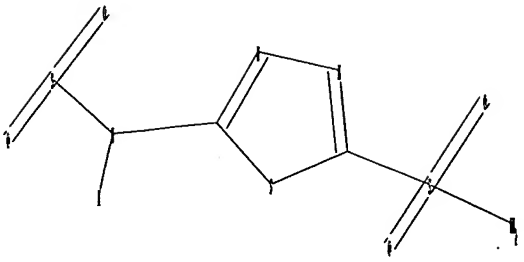

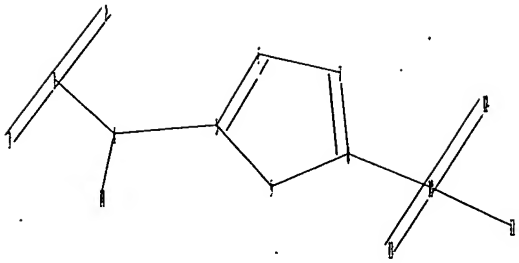

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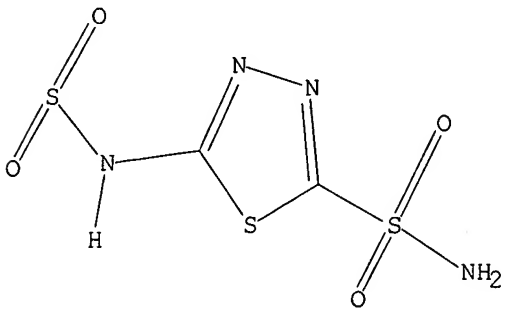
1 2 3 4 10 11 12 13 14
ring nodes :
5 6 7 8 9
chain bonds :
1-4 1-2 1-3 4-5 4-14 8-10 10-11 10-12 10-13
ring bonds :
5-6 5-9 6-7 7-8 8-9
exact/norm bonds :
1-4 1-2 1-3 4-5 5-6 5-9 6-7 7-8 8-9 8-10 10-11 10-12 10-13
exact bonds :
4-14

Match level :
1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom
10:CLASS 11:CLASS 12:CLASS 13:CLASS 14:CLASS

L1 STRUCTURE UPLOADED

=> d l1
L1 HAS NO ANSWERS
L1 STR




Structure attributes must be viewed using STN Express query preparation.

=> s l1
SAMPLE SEARCH INITIATED 14:45:36 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 11 TO ITERATE

100.0% PROCESSED 11 ITERATIONS 8 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 22 TO 418

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PROJECTED ANSWERS:                8 TO      329

L2             8 SEA SSS SAM L1

=> s l1 full
FULL SEARCH INITIATED 14:45:46 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -      351 TO ITERATE

100.0% PROCESSED      351 ITERATIONS                          218 ANSWERS
SEARCH TIME: 00.00.01

L3           218 SEA SSS FUL L1

=> file caplus
COST IN U.S. DOLLARS                          SINCE FILE      TOTAL
                                                   ENTRY    SESSION
FULL ESTIMATED COST                               172.10     172.31

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=> s l3/dgn
           199 L3
         73556 DGN/RL
L4           0 L3/DGN
                 (L3 (L) DGN/RL)

=> s l3
L5         199 L3

=> s tumor? or neoplas? or cancer?
        456707 TUMOR?
        479316 NEOPLAS?
        319785 CANCER?
L6      756702 TUMOR? OR NEOPLAS? OR CANCER?

=> s l6 and l5
L7          26 L6 AND L5

=> s l7 not py>2002
       4853307 PY>2002
L8           4 L7 NOT PY>2002

=> d ibib 1-4
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L8 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2001:322273 CAPLUS
DOCUMENT NUMBER: 135:55472
TITLE: Carbonic anhydrase inhibitors: 88. Sulfonamides as antitumor agents?
AUTHOR(S): Supuran, Claudiu T.; Briganti, Fabrizio; Tilli, Silvia; Chegwidden, W. Richard; Scozzafava, Andrea
CORPORATE SOURCE: Laboratorio di Chimica Inorganica e Bioinorganica, Universita degli Studi, Laboratorio di Chimica Inorganica e Bioinorganica, Florence, I-50121, Italy
SOURCE: Bioorganic & Medicinal Chemistry (2001), 9(3), 703-714
CODEN: BMECEP; ISSN: 0968-0896
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 135:55472
REFERENCE COUNT: 81 THERE ARE 81 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2000:696271 CAPLUS
DOCUMENT NUMBER: 133:344324
TITLE: Carbonic anhydrase inhibitors - Part 94. 1,3,4-Thiadiazole-2-sulfonamide derivatives as antitumor agents?
AUTHOR(S): Supuran, Claudiu T.; Scozzafava, Andrea
CORPORATE SOURCE: Universita degli Studi, Laboratorio di Chimica Inorganica e Bioinorganica, Florence, I-50121, Italy
SOURCE: European Journal of Medicinal Chemistry (2000), 35(9), 867-874
CODEN: EJMCA5; ISSN: 0223-5234
PUBLISHER: Editions Scientifiques et Medicales Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2000:379680 CAPLUS
DOCUMENT NUMBER: 133:171930
TITLE: Carbonic anhydrase inhibitors: synthesis of N-morpholylthiocarbonylsulfenylamino aromatic/heterocyclic sulfonamides and their interaction with isozymes I, II and IV
AUTHOR(S): Scozzafava, Andrea; Supuran, Claudiu T.
CORPORATE SOURCE: Universita degli Studi, Laboratorio di Chimica Inorganica e Bioinorganica, Florence, I-50121, Italy
SOURCE: Bioorganic & Medicinal Chemistry Letters (2000), 10(10), 1117-1120
CODEN: BMCLE8; ISSN: 0960-894X
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1964:457068 CAPLUS
DOCUMENT NUMBER: 61:57068
ORIGINAL REFERENCE NO.: 61:9923b-e
TITLE: The anticonvulsive action of acetazolamide, its derivatives, and some other sulfonamides
AUTHOR(S): Gores, E.; Hilgetag, G.; Jung, F.
CORPORATE SOURCE: Humboldt Univ., Berlin

SOURCE: Acta Physiologica Academiae Scientiarum Hungaricae (1961), 19, 95-102
From: CZ 1962(6), 2078.
CODEN: APACAB; ISSN: 0001-6756
DOCUMENT TYPE: Journal
LANGUAGE: German

=> d ibib 1-4 abs kwic

L8 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2001:322273 CAPLUS
DOCUMENT NUMBER: 135:55472
TITLE: Carbonic anhydrase inhibitors: 88. Sulfonamides as antitumor agents?
AUTHOR(S): Supuran, Claudiu T.; Briganti, Fabrizio; Tilli, Silvia; Chegwidden, W. Richard; Scozzafava, Andrea
CORPORATE SOURCE: Laboratorio di Chimica Inorganica e Bioinorganica, Universita degli Studi, Laboratorio di Chimica Inorganica e Bioinorganica, Florence, I-50121, Italy
SOURCE: Bioorganic & Medicinal Chemistry (2001), 9(3), 703-714
CODEN: BMECEP; ISSN: 0968-0896
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 135:55472
AB Novel sulfonamide inhibitors of the zinc enzyme carbonic anhydrase (CA, EC 4.2.1.1) were prepared by reaction of aromatic or heterocyclic sulfonamides containing amino, imino, or hydrazino moieties with N,N-dialkyldithiocarbamates in the presence of oxidizing agents (sodium hypochlorite or iodine). The N,N-dialkylthiocarbamylsulfenamido-sulfonamides synthesized in this way behaved as strong inhibitors of human CA I and CA II (hCA I and hCA II) and bovine CA IV (bCA IV). For the most active compds., inhibition consts. ranged from 10-8 to 10-9 M (for isoenzymes II and IV). Three of the derivs. belonging to this new class of CA inhibitors were also tested as inhibitors of tumor cell growth in vitro. These sulfonamides showed potent inhibition of growth against several leukemia, non-small cell lung, ovarian, melanoma, colon, CNS, renal, prostate and breast cancer cell lines. With several cell lines, GI50 values of 10-75 nM were observed The mechanism of antitumor action with the new sulfonamides reported here remains obscure, but may involve inhibition of CA isoenzymes which predominate in tumor cell membranes (CA IX and CA XII), perhaps causing acidification of the intercellular milieu, or inhibition of intracellular isoenzymes which provide bicarbonate for the synthesis of nucleotides and other essential cell components (CA II and CA V). Optimization of these derivs. from the SAR point of view, might lead to the development of effective novel types of anticancer agents.
REFERENCE COUNT: 81 THERE ARE 81 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
AB Novel sulfonamide inhibitors of the zinc enzyme carbonic anhydrase (CA, EC 4.2.1.1) were prepared by reaction of aromatic or heterocyclic sulfonamides containing amino, imino, or hydrazino moieties with N,N-dialkyldithiocarbamates in the presence of oxidizing agents (sodium hypochlorite or iodine). The N,N-dialkylthiocarbamylsulfenamido-sulfonamides synthesized in this way behaved as strong inhibitors of human CA I and CA II (hCA I and hCA II) and bovine CA IV (bCA IV). For the most active compds., inhibition consts. ranged from 10-8 to 10-9 M (for isoenzymes II and IV). Three of the derivs. belonging to this new class of CA inhibitors were also tested as inhibitors of tumor cell growth in vitro. These sulfonamides showed potent inhibition of growth against several leukemia, non-small cell lung, ovarian, melanoma, colon, CNS, renal, prostate and breast cancer cell lines. With several cell lines, GI50 values of 10-75 nM were observed The mechanism of antitumor action with the new sulfonamides reported here remains obscure, but may

involve inhibition of CA isoenzymes which predominate in tumor cell membranes (CA IX and CA XII), perhaps causing acidification of the intercellular milieu, or inhibition of intracellular isoenzymes which provide bicarbonate for the synthesis of nucleotides and other essential cell components (CA II and CA V). Optimization of these derivs. from the SAR point of view, might lead to the development of effective novel types of anticancer agents.

IT 63-74-1 98-18-0 121-30-2 138-39-6 547-52-4 654-62-6 2153-13-1 2368-84-5 3306-62-5 3523-95-3 4392-54-5 5250-72-6 14949-00-9 16840-26-9 35303-76-5 53297-68-0 53297-69-1 60154-06-5 86029-46-1 88615-09-2 120280-13-9 216885-22-2 217972-52-6 345970-47-0 345970-48-1

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent)

(sulfonamide carbonic anhydrase inhibitors as antitumor agents)

IT 345970-49-2P 345970-50-5P 345970-51-6P 345970-52-7P 345970-53-8P 345970-54-9P 345970-55-0P 345970-56-1P 345970-57-2P 345970-58-3P 345970-59-4P 345970-60-7P 345970-61-8P 345970-62-9P 345970-63-0P 345970-64-1P 345970-65-2P 345970-66-3P 345970-67-4P 345970-68-5P 345970-69-6P 345970-70-9P 345970-71-0P 345970-72-1P 345970-73-2P 345970-74-3P 345970-75-4P 345970-77-6P 345970-79-8P 345970-80-1P 345970-81-2P 345970-82-3P 345970-83-4P 345970-84-5P 345970-85-6P 345970-86-7P 345970-87-8P 345970-88-9P 345970-89-0P 345970-90-3P 345970-91-4P 345970-92-5P 345970-93-6P 345970-94-7P 345970-95-8P 345970-96-9P 345970-97-0P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(sulfonamide carbonic anhydrase inhibitors as antitumor agents)

IT 90110-89-7 306314-22-7

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(sulfonamide carbonic anhydrase inhibitors as antitumor agents)

L8 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:696271 CAPLUS

DOCUMENT NUMBER: 133:344324

TITLE: Carbonic anhydrase inhibitors - Part 94. 1,3,4-Thiadiazole-2-sulfonamide derivatives as antitumor agents?

AUTHOR(S): Supuran, Claudiu T.; Scozzafava, Andrea

CORPORATE SOURCE: Universita degli Studi, Laboratorio di Chimica Inorganica e Bioinorganica, Florence, I-50121, Italy

SOURCE: European Journal of Medicinal Chemistry (2000), 35(9), 867-874
CODEN: EJMCA5; ISSN: 0223-5234

PUBLISHER: Editions Scientifiques et Medicales Elsevier

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Potent sulfonamide inhibitors of the zinc enzyme carbonic anhydrase (CA, EC 4.2.1.1), derivs. of 1,3,4-thiadiazole-2-sulfonamide, possessing inhibition consts. in the range of 10-8-10-9 M against isoenzymes II and IV, were shown to act as efficient in vitro tumor cell growth inhibitors with GI50 (molarity of inhibitor producing a 50% inhibition of tumor cell growth) values typically in the range of 0.1-30 μM against several leukemia, non-small cell lung cancer, ovarian, melanoma, colon, CNS, renal, prostate and breast cancer cell lines. The mechanism of antitumor action with the new sulfonamides reported here is unknown, but it might involve either inhibition of several CA isoenzymes (such as CA IX, CA XII, CA XIV) present predominantly in tumor cell membranes, acidification of the intracellular environment as a consequence of CA inhibition, uncoupling of mitochondria and/or strong CA V inhibition, or a combination of several

such mechanisms. Such derivs. might lead to the development of effective novel types of anticancer agents/therapies.

REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB Potent sulfonamide inhibitors of the zinc enzyme carbonic anhydrase (CA, EC 4.2.1.1), derivs. of 1,3,4-thiadiazole-2-sulfonamide, possessing inhibition consts. in the range of 10-8-10-9 M against isoenzymes II and IV, were shown to act as efficient in vitro tumor cell growth inhibitors with GI50 (molarity of inhibitor producing a 50% inhibition of tumor cell growth) values typically in the range of 0.1-30 μM against several leukemia, non-small cell lung cancer, ovarian, melanoma, colon, CNS, renal, prostate and breast cancer cell lines. The mechanism of antitumor action with the new sulfonamides reported here is unknown, but it might involve either inhibition of several CA isoenzymes (such as CA IX, CA XII, CA XIV) present predominantly in tumor cell membranes, acidification of the intracellular environment as a consequence of CA inhibition, uncoupling of mitochondria and/or strong CA V inhibition, or a combination of several such mechanisms. Such derivs. might lead to the development of effective novel types of anticancer agents/therapies.

IT 25182-53-0DP, 1,3,4-Thiadiazole-2-sulfonamide, derivs. 86029-44-9P 90110-89-7P 97919-22-7P, CQS 141430-65-1P, E 7010 144462-41-9P 165668-41-7P, E 7070 196512-72-8P 207795-80-0P 207796-05-2P 306314-22-7P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(carbonic anhydrase inhibitors: 1,3,4-thiadiazole-2-sulfonamide derivs. as antitumor agents)

L8 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:379680 CAPLUS

DOCUMENT NUMBER: 133:171930

TITLE: Carbonic anhydrase inhibitors: synthesis of N-morpholylthiocarbonylsulfenylamino aromatic/heterocyclic sulfonamides and their interaction with isozymes I, II and IV

AUTHOR(S): Scozzafava, Andrea; Supuran, Claudiu T.

CORPORATE SOURCE: Universita degli Studi, Laboratorio di Chimica Inorganica e Bioinorganica, Florence, I-50121, Italy

SOURCE: Bioorganic & Medicinal Chemistry Letters (2000), 10(10), 1117-1120
CODEN: BMCLE8; ISSN: 0960-894X

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Several aromatic/heterocyclic sulfonamides possessing free amino, imino, or hydrazino moieties were transformed into the corresponding N-morpholylthiocarbonylsulfenyl derivs. by reaction with N-morpholyldithiocarbamate in the presence of oxidizing agents (NaClO or iodine). These compds. showed nanomolar inhibition against three CA (carbonic anhydrase) isoenzymes and interesting in vitro tumor cell growth inhibitory properties against several leukemia, non-small cell lung, ovarian, melanoma, colon, CNS, renal, prostate, and breast cancer cell lines.

REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB Several aromatic/heterocyclic sulfonamides possessing free amino, imino, or hydrazino moieties were transformed into the corresponding N-morpholylthiocarbonylsulfenyl derivs. by reaction with N-morpholyldithiocarbamate in the presence of oxidizing agents (NaClO or iodine). These compds. showed nanomolar inhibition against three CA (carbonic anhydrase) isoenzymes and interesting in vitro tumor cell growth inhibitory properties against several leukemia, non-small cell lung, ovarian, melanoma, colon, CNS, renal, prostate, and breast

cancer cell lines.

ST morpholylthiocarbonylsulfenylaminosulfonamide inhibition carbonic anhydrase isoenzyme tumor cell growth

IT Antitumor agents
(N-morpholylthiocarbonylsulfenylamino aromatic/heterocyclic sulfonamide interaction with carbonic anhydrase isoenzymes I, II and IV and cancer growth inhibitory properties)

IT Antitumor agents
(central nervous system; N-morpholylthiocarbonylsulfenylamino aromatic/heterocyclic sulfonamide interaction with carbonic anhydrase isoenzymes I, II and IV and cancer growth inhibitory properties)

IT Nervous system
Nervous system
(central, neoplasm, inhibitors; N-morpholylthiocarbonylsulfenylamino aromatic/heterocyclic sulfonamide interaction with carbonic anhydrase isoenzymes I, II and IV and cancer growth inhibitory properties)

IT Intestine, neoplasm
Intestine, neoplasm
(colon, inhibitors; N-morpholylthiocarbonylsulfenylamino aromatic/heterocyclic sulfonamide interaction with carbonic anhydrase isoenzymes I, II and IV and cancer growth inhibitory properties)

IT Antitumor agents
(colon; N-morpholylthiocarbonylsulfenylamino aromatic/heterocyclic sulfonamide interaction with carbonic anhydrase isoenzymes I, II and IV and cancer growth inhibitory properties)

IT Kidney, neoplasm
Kidney, neoplasm
Ovary, neoplasm
Ovary, neoplasm
(inhibitors; N-morpholylthiocarbonylsulfenylamino aromatic/heterocyclic sulfonamide interaction with carbonic anhydrase isoenzymes I, II and IV and cancer growth inhibitory properties)

IT Antitumor agents
Antitumor agents
(kidney; N-morpholylthiocarbonylsulfenylamino aromatic/heterocyclic sulfonamide interaction with carbonic anhydrase isoenzymes I, II and IV and cancer growth inhibitory properties)

IT Antitumor agents
(leukemia; N-morpholylthiocarbonylsulfenylamino aromatic/heterocyclic sulfonamide interaction with carbonic anhydrase isoenzymes I, II and IV and cancer growth inhibitory properties)

IT Antitumor agents
(lung non-small-cell carcinoma; N-morpholylthiocarbonylsulfenylamino aromatic/heterocyclic sulfonamide interaction with carbonic anhydrase isoenzymes I, II and IV and cancer growth inhibitory properties)

IT Antitumor agents
(mammary gland; N-morpholylthiocarbonylsulfenylamino aromatic/heterocyclic sulfonamide interaction with carbonic anhydrase isoenzymes I, II and IV and cancer growth inhibitory properties)

IT Antitumor agents
(melanoma; N-morpholylthiocarbonylsulfenylamino aromatic/heterocyclic sulfonamide interaction with carbonic anhydrase isoenzymes I, II and IV and cancer growth inhibitory properties)

IT Mammary gland
Mammary gland
Prostate gland
Prostate gland
(neoplasm, inhibitors; N-morpholylthiocarbonylsulfenylamino aromatic/heterocyclic sulfonamide interaction with carbonic anhydrase isoenzymes I, II and IV and cancer growth inhibitory properties)

IT Lung, neoplasm
Lung, neoplasm
(non-small-cell carcinoma, inhibitors; N-morpholylthiocarbonylsulfenylamino aromatic/heterocyclic sulfonamide interaction with carbonic anhydrase isoenzymes I, II and IV and cancer growth inhibitory properties)
IT Enzyme kinetics
(of inhibition; N-morpholylthiocarbonylsulfenylamino aromatic/heterocyclic sulfonamide interaction with carbonic anhydrase isoenzymes I, II and IV and cancer growth inhibitory properties)
IT Antitumor agents
Antitumor agents
(ovary; N-morpholylthiocarbonylsulfenylamino aromatic/heterocyclic sulfonamide interaction with carbonic anhydrase isoenzymes I, II and IV and cancer growth inhibitory properties)
IT Antitumor agents
(prostate gland; N-morpholylthiocarbonylsulfenylamino aromatic/heterocyclic sulfonamide interaction with carbonic anhydrase isoenzymes I, II and IV and cancer growth inhibitory properties)
IT 288584-57-6 288584-58-7 288584-59-8 288584-60-1 288584-61-2
288584-62-3 288584-63-4 288584-64-5 288584-65-6 288584-66-7
288584-67-8 288584-68-9 288584-69-0 288584-70-3 288584-71-4
288584-72-5 288584-73-6 288584-74-7 288584-75-8
288584-76-9
RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(N-morpholylthiocarbonylsulfenylamino aromatic/heterocyclic sulfonamide interaction with carbonic anhydrase isoenzymes I, II and IV and cancer growth inhibitory properties)
IT 9001-03-0, Carbonic anhydrase
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(isoenzymes; N-morpholylthiocarbonylsulfenylamino aromatic/heterocyclic sulfonamide interaction with carbonic anhydrase isoenzymes I, II and IV and cancer growth inhibitory properties)
IT 63-74-1 98-18-0 121-30-2 138-39-6 547-52-4 2368-84-5 3306-62-5
3523-95-3 4392-54-5 5250-72-6 14949-00-9 16840-26-9
35303-76-5 53297-68-0 53297-69-1 60154-06-5 86029-46-1
120280-13-9 216885-22-2 217972-52-6
RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(sulfonamide interaction with carbonic anhydrase isoenzymes I, II and IV)

L8 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1964:457068 CAPLUS
DOCUMENT NUMBER: 61:57068
ORIGINAL REFERENCE NO.: 61:9923b-e
TITLE: The anticonvulsive action of acetazolamide, its derivatives, and some other sulfonamides
AUTHOR(S): Gores, E.; Hilgetag, G.; Jung, F.
CORPORATE SOURCE: Humboldt Univ., Berlin
SOURCE: Acta Physiologica Academiae Scientiarum Hungaricae (1961), 19, 95-102
From: CZ 1962(6), 2078.
CODEN: APACAB; ISSN: 0001-6756
DOCUMENT TYPE: Journal
LANGUAGE: German
AB The following 2-acetamido- and 5-aminosulfonyl-1,3,4-thiadiazole compds. were tested for convulsion-preventive action against elec., pentamethylenetetrazole, and strychnine convulsions: 2-acetamido-1,3,4-thiadizazole, 5-[ethylaminosulfonyl]- (I); 5-(diethylaminosulfonyl)- (II);

5-(ureidosulfonyl)- (III); 5-[N2-methylureidosulfonyl)- (IV);
5-(N2-ethylureidosulfonyl)- (V); 5-(N2-butylureidosulfonyl)- (VI); and
5-(N2-phenylureidosulfonyl)-; 5-aminosulfonyl-1,3,4-thiadiazole;
2-amino-(VII); 2-acetamido-(VIII); 2-(p-chlorobenzenesulfonamido)- (IX);
2-(p-carboxybenzenesulfonamido)-; 2-(p-nitrobenzenesulfonamido)-; and
2-(2-acetamido-1,3,4-thiadiazole-5-sulfonamido)-. The following compds.
were also investigated: 2,2'-succinyldiaminobis(1,3,4-thiadiazole-5-
sulfonamide) (X); N,N'-hexamethylenebis[3-(2-acetamido-1,3,4-thiadiazol-5-
ylsulfonyl)urea]; N',N'-octamethylenebis[3-(2-acetamido-1,3,4-thiadiazol-5-
ylsulfonyl)urea]; p-acetamidobenzenesulfonamide (XI); oranil; orabet;
Prontosil; Uliron C; Neo-Uliron; p-(p-chlorobenzenesulfonylamino)benzenesu
lfonamide; 1,4-benzenedisulfonamide; chlorothiazide; dihydrochlorothiazide;
and triazurol. III, V-XI, and XIII were effective against elec.
convulsions; only II was effective against pentamethylenetetrazole
convulsions; and I, IV, XII, and XIII were effective against strychnine
convulsions. A parallel with the diuretic action was not established.
IT 58-93-5, 2H-1,2,4-Benzothiadiazine-7-sulfonamide, 6-chloro-3,4-dihydro-,
1,1-dioxide 58-94-6, 2H-1,2,4-Benzothiadiazine-7-sulfonamide, 6-chloro-,
1,1-dioxide 64-77-7, Urea, 1-butyl-3-(p-tolylsulfonyl)- 103-12-8,
Benzenesulfonamide, p-(2,4-diaminophenyl)azo]- 121-61-9, Acetanilide,
4'-sulfamoyl- 339-43-5, Urea, 1-butyl-3-sulfanilyl- 500-42-5,
s-Triazine, 2-amino-4-(p-chloroanilino)- 547-52-4, Sulfanilanilide,
4'-sulfamoyl- 547-53-5, Sulfanilanilide, 4'-(methylsulfamoyl)-
10518-52-2, Urea, 1-[(5-acetamido-1,3,4-thiadiazol-2-yl)sulfonyl]-3-butyl-
13463-26-8, 1,3,4-Thiadiazole-2-sulfonamide, 5-(p-
chlorobenzenesulfonamido)- 13681-31-7, 1,3,4-Thiadiazole-2-sulfonamide,
5-acetamido-N,N-diethyl- 14949-00-9, 1,3,4-Thiadiazole-2-sulfonamide,
5-amino- 16993-45-6, p-Benzenedisulfonamide 25182-53-0,
1,3,4-Thiadiazole-2-sulfonamide, 5-acetamido 84884-65-1, Urea,
[(5-acetamido-1,3,4-thiadiazol-2-yl)sulfonyl]- 84884-66-2, Urea,
1-[(5-acetamido-1,3,4-thiadiazol-2-yl)sulfonyl]-3-methyl- 84884-70-8,
Urea, 1-[(5-acetamido-1,3,4-thiadiazol-2-yl)sulfonyl]-3-phenyl-
89489-04-3, 1,3,4-Thiadiazole-2-sulfonamide, 5-acetamido-N-ethyl-
90110-89-7, 1,3,4-Thiadiazole-2-sulfonamide, 5-(p-
nitrobenzenesulfonamido)- 90271-63-9, Urea, 1-[(5-acetamido-1,3,4-
thiadiazol-2-yl)sulfonyl]-3-ethyl- 90324-21-3, Benzoic acid,
p-[(5-sulfamoyl-1,3,4-thiadiazol-2-yl)sulfamoyl]- 91114-64-6,
N,5'-Bi[1,3,4-thiadiazole-2-sulfonamide], 5-acetamido- 91398-32-2,
Benzenesulfonanilide, 4-chloro-4'-sulfamoyl- 92187-74-1, Succinamide,
N,N'-bis(5-sulfamoyl-1,3,4-thiadiazol-2-yl)- 97790-65-3, Urea,
1,1'-hexamethylenebis[3-[(5-acetamido-1,3,4-thiadiazol-2-yl)sulfonyl]-
98766-55-3, Urea, 1,1'-octamethylenebis[3-[(5-acetamido-1,3,4-thiadiazol-2-
yl)sulfonyl]-
(as anticonvulsant)
IT 26367-45-3, Alanine, 3-[p-[bis(2-chloroethyl)amino]phenyl]-N-formyl-
(neoplasm inhibition by)

=> (positron emission tomography) or PET
(POSITRON IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).

=> s (positron emission tomography) or PET
58520 POSITRON
12716 POSITRONS
60849 POSITRON
(POSITRON OR POSITRONS)
506316 EMISSION
93434 EMISSIONS
550703 EMISSION
(EMISSION OR EMISSIONS)
18466 TOMOGRAPHY
10 TOMOGRAPHIES

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        18471 TOMOGRAPHY
                (TOMOGRAPHY OR TOMOGRAPHIES)
        23557 TOMOG
           31 TOMOGS
        23568 TOMOG
                (TOMOG OR TOMOGS)
        29235 TOMOGRAPHY
                (TOMOGRAPHY OR TOMOG)
         9739 POSITRON EMISSION TOMOGRAPHY
                (POSITRON(W)EMISSION(W)TOMOGRAPHY)
        67172 PET
          967 PETS
        67621 PET
                (PET OR PETS)
L9      70632 (POSITRON EMISSION TOMOGRAPHY) OR PET

=> d his

     (FILE 'HOME' ENTERED AT 14:45:08 ON 01 FEB 2007)

     FILE 'REGISTRY' ENTERED AT 14:45:17 ON 01 FEB 2007
L1             STRUCTURE UPLOADED
L2           8 S L1
L3         218 S L1 FULL

     FILE 'CAPLUS' ENTERED AT 14:45:53 ON 01 FEB 2007
L4           0 S L3/DGN
L5         199 S L3
L6      756702 S TUMOR? OR NEOPLAS? OR CANCER?
L7          26 S L6 AND L5
L8           4 S L7 NOT PY>2002
L9       70632 S (POSITRON EMISSION TOMOGRAPHY) OR PET

=> s l9 (L) l6
L10      3607 L9 (L) L6

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      4853307 PY>2002
L11      2179 L10 NOT PY>2002

=> d ibib abs kwic

L11  ANSWER 1 OF 2179  CAPLUS  COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER:         2006:990937  CAPLUS
DOCUMENT NUMBER:          145:484479
TITLE:                    Protein and cDNA sequences of a 24.09-kilodalton human
                          proteasome subunit HC5 sequence homolog and their
                          therapeutic uses
INVENTOR(S):              Mao, Yumin; Xie, Yi
PATENT ASSIGNEE(S):       Shanghai Biowindow Gene Development, Inc., Peop. Rep.
                          China
SOURCE:                   Faming Zhuanli Shenqing Gongkai Shuomingshu, 31pp.
                          CODEN: CNXXEV
DOCUMENT TYPE:            Patent
LANGUAGE:                 Chinese
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.           KIND   DATE        APPLICATION NO.         DATE
     ---------------      ----   --------    --------------------    --------
     CN 1345865            A     20020424    CN 2000-125585          20000929
PRIORITY APPLN. INFO.:                       CN 2000-125585          20000929
AB   The invention provides the protein and cDNA sequences of a novel
     24.09-kilodalton human protein, designated as "proteasome subunit HC5
     24.09", which has sequence homol. with known proteasome subunit HC5.  The
```

invention relates to expression of proteasome subunit HC5 sequence homolog in E. coli BL21(DE3)plySs transfected with plasmid pET-28(+). The invention also relates to preparation of antibody against proteasome subunit HC5 sequence homolog. The invention further relates to the uses of the proteasome subunit HC5 sequence homolog in treatment of proteasome subunit HC5-related diseases (such as tumor, diabetes mellitus, menstrual disorder, peptic ulcer, arrhythmia, anemia, and epilepsy).

AB The invention provides the protein and cDNA sequences of a novel 24.09-kilodalton human protein, designated as "proteasome subunit HC5 24.09", which has sequence homol. with known proteasome subunit HC5. The invention relates to expression of proteasome subunit HC5 sequence homolog in E. coli BL21(DE3)plySs transfected with plasmid pET-28(+). The invention also relates to preparation of antibody against proteasome subunit HC5 sequence homolog. The invention further relates to the uses of the proteasome subunit HC5 sequence homolog in treatment of proteasome subunit HC5-related diseases (such as tumor, diabetes mellitus, menstrual disorder, peptic ulcer, arrhythmia, anemia, and epilepsy).

```
=> s (positron emission tomography)
         58520 POSITRON
         12716 POSITRONS
         60849 POSITRON
                 (POSITRON OR POSITRONS)
        506316 EMISSION
         93434 EMISSIONS
        550703 EMISSION
                 (EMISSION OR EMISSIONS)
         18466 TOMOGRAPHY
            10 TOMOGRAPHIES
         18471 TOMOGRAPHY
                 (TOMOGRAPHY OR TOMOGRAPHIES)
         23557 TOMOG
            31 TOMOGS
         23568 TOMOG
                 (TOMOG OR TOMOGS)
         29235 TOMOGRAPHY
                 (TOMOGRAPHY OR TOMOG)
L12       9739 (POSITRON EMISSION TOMOGRAPHY)
                 (POSITRON(W)EMISSION(W)TOMOGRAPHY)

=> s l12 (L) l6
L13       1718 L12 (L) L6

=> d ibib kwic

L13  ANSWER 1 OF 1718  CAPLUS  COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER:        2007:101979  CAPLUS
TITLE:                   In vivo biodistribution and highly efficient tumour
                         targeting of carbon nanotubes in mice
AUTHOR(S):               Liu, Zhuang; Cai, Weibo; He, Lina; Nakayama, Nozomi;
                         Chen, Kai; Sun, Xiaoming; Chen, Xiaoyuan; Dai, Hongjie
CORPORATE SOURCE:        Department of Chemistry, Stanford University,
                         Stanford, CA, 94305, USA
SOURCE:                  Nature Nanotechnology (2007), 2(1), 47-52
                         CODEN: NNAABX; ISSN: 1748-3387
PUBLISHER:               Nature Publishing Group
DOCUMENT TYPE:           Journal
LANGUAGE:                English
```

AB Single-walled carbon nanotubes (SWNTs) exhibit unique size, shape and phys. properties that make them promising candidates for biol. applications. Here, we investigate the biodistribution of radio-labeled SWNTs in mice by in vivo positron emission tomog. (PET), ex vivo biodistribution and Raman spectroscopy. It is found that SWNTs that are functionalized with phospholipids bearing

polyethylene-glycol (PEG) are surprisingly stable in vivo. The effect of PEG chain length on the biodistribution and circulation of the SWNTs is studied. Effectively PEGylated SWNTs exhibit relatively long blood circulation times and low uptake by the reticuloendothelial system (RES). Efficient targeting of integrin pos. tumor in mice is achieved with SWNTs coated with PEG chains linked to an arginine-glycine-aspartic acid (RGD) peptide. A high tumor accumulation is attributed to the multivalent effect of the SWNTs. The Raman signatures of SWNTs are used to directly probe the presence of nanotubes in mice tissues and confirm the radio-label-based results.

```
=> s brain and l13
        538747 BRAIN
         25015 BRAINS
        541541 BRAIN
                  (BRAIN OR BRAINS)
L14        297 BRAIN AND L13

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         44315 CARBONIC
             1 CARBONICS
L15      44316 CARBONIC
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L17        213 L14 NOT PY>2003

=> s l14 not py>2002
       4853307 PY>2002
L18        193 L14 NOT PY>2002

=> d ibib abs kwic

L18  ANSWER 1 OF 193  CAPLUS  COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER:        2004:7237  CAPLUS
DOCUMENT NUMBER:         141:319962
TITLE:                   Preparation 18F-choline analogue and its
                         biodistribution in annuals
AUTHOR(S):               Tang, Ganghua; Tang, Xiaolan; Wang, Mingfang; Zhang,
                         Lan; Li, Zhi; Luo, Lei; Huang, Zuhan
CORPORATE SOURCE:        Nanfang PET Center, Nanfang Hospital, First Military
                         Medical University, Guangzhou, 510515, Peop. Rep.
                         China
SOURCE:                  Zhonghua Heyixue Zazhi (2002), 22(3), 172-174
                         CODEN: CITCDE; ISSN: 0253-9780
PUBLISHER:               Jiangsusheng Yuanzi Yixue Yanjiuso
DOCUMENT TYPE:           Journal
LANGUAGE:                Chinese
AB   A 18F labeled choline analog, 2-18F- fluoroethyl-dimethyl
     2-oxyethyl-ammonium (FECH), a tumor imaging agent, was developed. FECH
     was prepared via two steps displacement reaction of 18F-fluoride with
     1,2-bis(tosyloxy)ethane to give the intermediate, 1-18F-fluoro-2-
     (tosyloxy) ethane, which was then coupled with dimethylethanolamine to
     prepare FECH. Radiochem. purity and biodistributions in normal mice and
     nude mice bearing cancer cell were determined FECH was synthesized in about
     25% radiochem. yield with decay-correction and more than 99% radiochem.
     purity with a total radiosynthesis time of 80 min. Biodistributions of
     FECH in normal mice and nude mice were as follows: rapid blood clearance;
     high uptake in the liver, kidney, bladder and pancreas; low uptake in the
     brain, myocardium, stomach, intestine and bone; high in tumors in
```

blood, brain, heart, stomach, and muscle. A simple and practical synthesis protocol for FECH is achieved. Biodistribution of FECH in mice is very similar to that of 11C choline reported in literatures, FECH is promising to be an agent in diagnosis of tumors with PET imaging.

AB A 18F labeled choline analog, 2-18F- fluoroethyl-dimethyl 2-oxyethyl-ammonium (FECH), a tumor imaging agent, was developed. FECH was prepared via two steps displacement reaction of 18F-fluoride with 1,2-bis(tosyloxy)ethane to give the intermediate, 1-18F-fluoro-2-(tosyloxy) ethane, which was then coupled with dimethylethanolamine to prepare FECH. Radiochem. purity and biodistributions in normal mice and nude mice bearing cancer cell were determined FECH was synthesized in about 25% radiochem. yield with decay-correction and more than 99% radiochem. purity with a total radiosynthesis time of 80 min. Biodistributions of FECH in normal mice and nude mice were as follows: rapid blood clearance; high uptake in the liver, kidney, bladder and pancreas; low uptake in the brain, myocardium, stomach, intestine and bone; high in tumors in blood, brain, heart, stomach, and muscle. A simple and practical synthesis protocol for FECH is achieved. Biodistribution of FECH in mice is very similar to that of 11C choline reported in literatures, FECH is promising to be an agent in diagnosis of tumors with PET imaging.

IT Imaging agents
Positron-emission tomography
(preparation of 18F-choline analog as tumor imaging agents and its biodistribution in animals and)

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=>  dhis
DHIS IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).

=> d his

     (FILE 'HOME' ENTERED AT 14:45:08 ON 01 FEB 2007)

     FILE 'REGISTRY' ENTERED AT 14:45:17 ON 01 FEB 2007
L1             STRUCTURE UPLOADED
L2               8 S L1
L3             218 S L1 FULL

     FILE 'CAPLUS' ENTERED AT 14:45:53 ON 01 FEB 2007
L4               0 S L3/DGN
L5             199 S L3
L6          756702 S TUMOR? OR NEOPLAS? OR CANCER?
L7              26 S L6 AND L5
L8               4 S L7 NOT PY>2002
L9           70632 S (POSITRON EMISSION TOMOGRAPHY) OR PET
L10           3607 S L9 (L) L6
L11           2179 S L10 NOT PY>2002
L12           9739 S (POSITRON EMISSION TOMOGRAPHY)
L13           1718 S L12 (L) L6
L14            297 S BRAIN AND L13
L15          44316 S CARBONIC
L16              0 S L15 AND L14
L17            213 S L14 NOT PY>2003
L18            193 S L14 NOT PY>2002

=> s l5 and l12
L19              3 L5 AND L12

=> d ibib 1-3
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L19 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:1354320 CAPLUS
DOCUMENT NUMBER: 146:100561
TITLE: Preparation of arenesulfonamide fluorescent dye conjugates having carbonic anhydrase inhibiting activity and their use as therapeutic and diagnostic agents
INVENTOR(S): Supuran, Claudiu; Scozzafava, Andrea
PATENT ASSIGNEE(S): Italy
SOURCE: PCT Int. Appl., 46pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 2006137009 | A2 | 20061228 | WO 2006-IB51976 | 20060620 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW | | | | |
| RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| WO 2006137092 | A1 | 20061228 | WO 2005-IT366 | 20050623 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW | | | | |
| RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |

PRIORITY APPLN. INFO.: WO 2005-IT366 A 20050623

L19 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:1354145 CAPLUS
DOCUMENT NUMBER: 146:100560
TITLE: Preparation of fluorescent sulfonamide derivatives having carbonic anhydrase inhibiting activity and their use as cancer therapeutic and diagnostic agents
INVENTOR(S): Supuran, Claudiu T.; Scozzafava, Andrea
PATENT ASSIGNEE(S): Italy
SOURCE: PCT Int. Appl., 43pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 2006137092 | A1 | 20061228 | WO 2005-IT366 | 20050623 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, | | | | |

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            GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ,
            LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA,
            NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK,
            SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU,
            ZA, ZM, ZW
        RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
            IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF,
            CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM,
            KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG,
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            KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN,
            MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU,
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            US, UZ, VC, VN, ZA, ZM, ZW
        RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
            IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,
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            KG, KZ, MD, RU, TJ, TM
PRIORITY APPLN. INFO.:                      WO 2005-IT366       A  20050623
REFERENCE COUNT:          7     THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS
                                RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19  ANSWER 3 OF 3  CAPLUS  COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER:         1998:687761  CAPLUS
DOCUMENT NUMBER:          130:52370
TITLE:                    Carbonic anhydrase inhibitors - Part 29: interaction
                          of isoenzymes I, II and IV with benzolamide-like
                          derivatives
AUTHOR(S):                Supuran, Claudiu T.; Ilies, Marc A.; Scozzafava,
                          Andrea
CORPORATE SOURCE:         Universita degli Studi, Dipartimento di Chimica,
                          Laboratorio di Chimica Inorganica e Bioinorganica,
                          Florence, 50121, Italy
SOURCE:                   European Journal of Medicinal Chemistry (1998), 33(9),
                          739-751
                          CODEN: EJMCA5; ISSN: 0223-5234
PUBLISHER:                Editions Scientifiques et Medicales Elsevier
DOCUMENT TYPE:            Journal
LANGUAGE:                 English
REFERENCE COUNT:          60    THERE ARE 60 CITED REFERENCES AVAILABLE FOR THIS
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     (FILE 'HOME' ENTERED AT 14:45:08 ON 01 FEB 2007)

     FILE 'REGISTRY' ENTERED AT 14:45:17 ON 01 FEB 2007
L1             STRUCTURE UPLOADED
L2               8 S L1
L3             218 S L1 FULL

     FILE 'CAPLUS' ENTERED AT 14:45:53 ON 01 FEB 2007
L4               0 S L3/DGN
L5             199 S L3
L6          756702 S TUMOR? OR NEOPLAS? OR CANCER?
L7              26 S L6 AND L5
L8               4 S L7 NOT PY>2002
L9           70632 S (POSITRON EMISSION TOMOGRAPHY) OR PET
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L10         3607 S L9 (L) L6
L11         2179 S L10 NOT PY>2002
L12         9739 S (POSITRON EMISSION TOMOGRAPHY)
L13         1718 S L12 (L) L6
L14          297 S BRAIN AND L13
L15        44316 S CARBONIC
L16            0 S L15 AND L14
L17          213 S L14 NOT PY>2003
L18          193 S L14 NOT PY>2002
L19            3 S L5 AND L12

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FULL ESTIMATED COST                                    71.93     244.24

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 NEWS  4  OCT 30  CHEMLIST enhanced with new search and display field
 NEWS  5  NOV 03  JAPIO enhanced with IPC 8 features and functionality
 NEWS  6  NOV 10  CA/CAplus F-Term thesaurus enhanced
 NEWS  7  NOV 10  STN Express with Discover! free maintenance release Version
                  8.01c now available
 NEWS  8  NOV 20  CA/CAplus to MARPAT accession number crossover limit increased
                  to 50,000
 NEWS  9  DEC 01  CAS REGISTRY updated with new ambiguity codes
 NEWS 10  DEC 11  CAS REGISTRY chemical nomenclature enhanced
 NEWS 11  DEC 14  WPIDS/WPINDEX/WPIX manual codes updated
 NEWS 12  DEC 14  GBFULL and FRFULL enhanced with IPC 8 features and
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                  functionality
NEWS 13   DEC 18  CA/CAplus pre-1967 chemical substance index entries enhanced
                  with preparation role
NEWS 14   DEC 18  CA/CAplus patent kind codes updated
NEWS 15   DEC 18  MARPAT to CA/CAplus accession number crossover limit increased
                  to 50,000
NEWS 16   DEC 18  MEDLINE updated in preparation for 2007 reload
NEWS 17   DEC 27  CA/CAplus enhanced with more pre-1907 records
NEWS 18   JAN 08  CHEMLIST enhanced with New Zealand Inventory of Chemicals
NEWS 19   JAN 16  CA/CAplus Company Name Thesaurus enhanced and reloaded
NEWS 20   JAN 16  IPC version 2007.01 thesaurus available on STN
NEWS 21   JAN 16  WPIDS/WPINDEX/WPIX enhanced with IPC 8 reclassification data
NEWS 22   JAN 22  CA/CAplus updated with revised CAS roles
NEWS 23   JAN 22  CA/CAplus enhanced with patent applications from India
NEWS 24   JAN 29  PHAR reloaded with new search and display fields
NEWS 25   JAN 29  CAS Registry Number crossover limit increased to 300,000 in
                  multiple databases

NEWS EXPRESS  NOVEMBER 10 CURRENT WINDOWS VERSION IS V8.01c, CURRENT
              MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
              AND CURRENT DISCOVER FILE IS DATED 25 SEPTEMBER 2006.

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